

April 21, 2000

To: Interested Parties

**TRANSMITTAL OF DRAFT AMENDMENTS TO LAHONTAN BASIN PLAN AND
DRAFT ENVIRONMENTAL DOCUMENTS, AND UPDATE OF BASIN PLAN
MAILING LIST**

The Lahontan Regional Board expects to consider adoption of two different sets of amendments to the *Water Quality Control Plan for the Lahontan Basin* (Basin Plan), at its July 12-13, 2000 meeting in Tahoe City. The following documents are enclosed for your review:

- A Notice of Public Hearing which describes the six groups of amendments.
- A draft environmental document for the amendments described in Item 1 of the notice, which includes the text of the proposed amendments in a table.
- The text of the proposed amendments described in Items 2-6 of the notices.
- A draft environmental document for the amendments described in Items 2-6 of the notice.

The review period for the amendments and environmental documents will extend from April 26 to June 12, 2000. Written comments should be submitted by the latter date, and directed to the attention of Judith Unsicker at the address above. If approved by the Regional Board, the amendments will not take effect until they receive further approvals by the State Water Resources Control Board, the California Office of Administrative Law, and the U.S. Environmental Protection Agency.

Also enclosed is a form for update of the Lahontan Basin Plan mailing list. **Please complete and return this form if you wish to remain on the mailing list.** Questions about the mailing list, or requests for additional paper copies of the Basin Plan or the proposed amendments and reports should be directed to Shirley Harada of the Regional Board's South Lake Tahoe office at (530) 542-5404. The existing (1995) Basin Plan and current and future draft amendments will be available on the Regional Board's webpage at the following address:
<<http://www.mscomm.com/~rwqcb6>>.

Questions about the draft amendments and environmental document, or the plan amendment process, should be directed to Judith Unsicker at (530) 542-5417 or (email) unsij@rb6s.swrcb.ca.gov.

Sincerely,

Robert S. Dodds
Assistant Executive Officer

Enclosures

cc: (with enclosures) Regional Board Members
 Greg Frantz, Division of Water Quality, SWRCB
 Sheila Vassey, Division of Water Quality, SWRCB
 Philip Woods, USEPA, Region IX
 Steven Blum, OCC, SWRCB

JEU/shT:junbpcovr.doc
[Basin Plan- June 2000 Amendments,
xfile: TMDLs- Delisting Nine Waters]

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

**NOTICE OF PUBLIC HEARING
NOTICE OF FILING OF A DRAFT ENVIRONMENTAL DOCUMENT**

In the Matter of Proposed Amendments
to the Water Quality Control Plan for the Lahontan Region

NOTICE IS HEREBY GIVEN that the California Regional Water Quality Control Board, Lahontan Region (RWQCB) will hold a public hearing to receive comments on proposed amendments to the Water Quality Control Plan for the Lahontan Region (Basin Plan) and on two draft "functional equivalent" environmental documents prepared pursuant to Section 21080.5 of the California Environmental Quality Act (CEQA). The proposed amendments include the following:

1. Removal of the potential Municipal and Domestic Supply (MUN) beneficial use designation from the following water bodies: Wendel Hot Springs and Amedee Hot Springs (Lassen County); Fales Hot Springs and Hot Creek (Mono County, Walker River watershed); Little Hot Creek and Little Alkali Lake (Mono County, Owens River watershed); Keough Hot Springs and Deep Springs Lake (Inyo County); Amargosa River (Inyo and San Bernardino Counties).
2. Minor editorial corrections and clarifications throughout the plan.
3. Delegation of authority to local governments to implement certain septic system regulations in the Basin Plan.
4. Delegation of broader authority to the Executive Officer to grant exemptions to certain waste discharge prohibitions affecting the Lake Tahoe, Little Truckee River and Truckee River watersheds.
5. Changes to a regionwide prohibition against the discharge of industrial wastes to surface waters and addition of language to clarify its applicability.
6. Removal of the potential Municipal and Domestic Supply beneficial use designation from and addition of the Industrial Process Supply use to certain ground waters in the Searles Valley Basin, San Bernardino County.

Separate environmental documents have been prepared for Item 1 and for Items 2-6 above. They conclude that the Basin Plan amendments, with the mitigation included in the project descriptions, will have no significant effects on the environment, and no adverse socioeconomic impacts. No new pollution control requirements will be imposed.

The public hearing will be held as follows:

DATE: Wednesday and Thursday, July 12 and 13, 2000

TIME: During the RWQCB's regular meeting, which begins at 7:00 p.m. Wednesday

PLACE: 300 Fairway Drive, Tahoe City, California

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At the conclusion of the public hearing, the RWQCB will consider certification of the environmental document and approval of the proposed amendments.

The public review period for the proposed amendments and CEQA documents will extend from **April 26 to June 12, 2000**. Written comments or questions on the amendments and environmental documents should be directed to the attention of Judith Unsicker at the address below. Her telephone number is (530) 542-5417.

The draft amendments and environmental documents will be available on the Regional Board's Internet webpage at <<http://www.mscomm.com/~rwqcb6>>. Copies of these documents may be obtained by calling (530) 542-5400. Copies of the Basin Plan, the proposed amendments, the environmental documents, and related materials may be examined and photocopied on weekdays between 8:30 a.m. and 4:30 p.m. at the RWQCB's office, 2051 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150.

Robert S. Dodds, Assistant Executive Officer

Date

**PROPOSED AMENDMENTS TO THE WATER
QUALITY CONTROL PLAN FOR THE LAHONTAN
REGION
(BASIN PLAN)
TO DELETE THE POTENTIAL MUNICIPAL AND
DOMESTIC SUPPLY BENEFICIAL USE
DESIGNATION FROM NINE SALINE OR
GEOTHERMAL WATER BODIES**

**AND
STAFF REPORT/DRAFT ENVIRONMENTAL DOCUMENT**

STATE CLEARINGHOUSE NUMBER 98092052

California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

April 2000

Contact Person:

Judith E. Unsicker, Environmental Specialist IV (Specialist)

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SUMMARY

Proposed amendments to the Lahontan Basin Plan would remove the potential Municipal and Domestic Supply beneficial use designation from nine saline, geothermal, or geothermally influenced surface water bodies. The amendments would involve revisions to entries in Table 2-1 of the Basin Plan as shown in Table 3 of this report. These waters have concentrations of total dissolved solids and/or of trace elements such as arsenic, boron, and fluoride which exceed drinking water objectives and criteria. This impairment is due entirely to natural sources (volcanic/geothermal sources or concentration of salts in closed basins over geologic time). These waters have no historical municipal supply uses, and are not reasonably expected to be treated and used for municipal supply in the future. Technical information on these water bodies is provided in a separate "Use Attainability Analysis" report which is available on request. This environmental document concludes that removal of the potential municipal use designations will have no physical impacts on the environment, and no adverse socioeconomic impacts. Therefore, no consideration of alternatives or mitigation measures is necessary.

INTRODUCTION

The California Regional Water Quality Control Board, Lahontan Region (RWQCB) is the State agency responsible for setting and enforcing water quality standards, under the federal Clean Water Act and the California Water Code, for about 20 percent of California east of the Sierra Nevada crest and in the northern Mojave Desert. Water quality standards and control measures are set forth in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). The Basin Plan was last revised in 1995. The Regional Board is currently proposing to remove the potential "Municipal and Domestic Supply" (MUN) beneficial use designation from the nine surface water bodies listed in the Project Description below.

The RWQCB's planning process has been certified by the California Secretary for Resources under Section 21080.5 of the California Environmental Quality Act (CEQA) as "functionally equivalent" to the preparation of an Environmental Impact Report (EIR). This certification allows the Regional Board to prepare a relatively short "functional equivalent" document rather than, where appropriate, a lengthy EIR for proposed Basin Plan amendments. The environmental document must still contain all the elements of an EIR, and must be circulated for an equivalent public review period. The currently proposed amendments were included as part of a larger project description in a CEQA Notice of Preparation (NOP) which was circulated in September 1998.

This document serves both as a staff report to provide background information for the proposed amendments, and as a "functional equivalent" CEQA document. The environmental analysis below concludes that the proposed amendments will not have any significant adverse impacts on the environment. Readers who do not have copies of the

existing Basin Plan can read or download it in PDF format from the RWQCB's Internet homepage at <<http://mscomm.com/~rwqcb6>>.

PROJECT DESCRIPTION

The proposed action consists of removal of the potential municipal and domestic supply (MUN) beneficial use designation from the nine "naturally impaired" surface water bodies listed in Table 1 below. It should be emphasized that none of these water bodies is currently used as a drinking water source, and that there has been no known "historical" domestic use of these waters since the November 1975 effective date of the USEPA Water Quality Standards regulation (40 CFR 131.10). The amendments will involve removal of the "X's" for each of these waters from the MUN use column in Table 2-1 of the Basin Plan. Table 2-1 does not currently contain site specific beneficial use designations for Amedee Hot Springs, Little Alkali Lake, and Little Hot Creek. These waters do have designated beneficial uses, including a potential MUN use, under the "Minor Surface Waters" categories for their respective Hydrologic Units or Hydrologic Areas. The Basin Plan amendments will add new rows in the Basin Plan beneficial use table for these waters, with the information shown in Table 3 of this staff report, including all currently designated uses except for MUN.

Scientific information reviewed by Regional Board staff shows that other changes in beneficial uses for these three waters might be appropriate (e.g., a saline aquatic habitat use for Little Alkali Lake). However, such changes are not being proposed at this time because they were not included in the project description in the CEQA Notice of Preparation for these amendments. The scientific information used to justify these amendments is summarized in a separate staff report (California Regional Water Quality Control Board, Lahontan Region, 2000) which is available on request.

In 1989 the Lahontan Regional Board incorporated the "Sources of Drinking Water Policy" into the Basin Plan and designated most surface and ground waters of the Region for MUN use even if they did not meet the criteria in the policy. The Board's rationale was that, because water is scarce in most of the Lahontan Region, it might someday be feasible and desirable to treat some saline waters for municipal use. This MUN designation has led to listing of a number of natural saline lakes and geothermal springs in the region as "impaired" under Section 303(d) of the Clean Water Act, because of concentrations of salts and toxic trace elements which exceed drinking water standards. (The Basin Plan includes narrative water quality objectives for "chemical constituents" in surface and ground waters which require all waters designated for the MUN use to meet drinking water standards.) The technical staff report shows that the waters included in the proposed amendments have not historically supported a MUN use and are not expected to support this use in the future. Following approval of the Basin Plan amendments, the Regional Board will consider removal of these waters from the Section 303(d) list.

This functional equivalent environmental document should be considered the equivalent of a Negative Declaration. The proposed action will not have any direct physical impacts

on the environment. No discharges to the waters listed in Table 1 are proposed at this time, and no discharges are reasonably foreseeable. The site specific impacts of possible future discharges to these nine waters cannot be foreseen and must be considered speculative.

Table 1. Water bodies proposed for removal of the potential Municipal and Domestic Supply (MUN) beneficial use designation.

Hydrologic Unit Number	Waterbody Name	Watershed	County
637.20	Wendel Hot Springs	Honey Lake	Lassen
637.20	Amedee Hot Springs	Honey Lake	Lassen
631.40	Fales Hot Springs	Walker River	Mono
631.40	Hot Creek	Walker River	Mono
603.10	Little Hot Creek	Owens River	Mono
603.10	Little Alkali Lake	Owens River	Mono
603.20	Keough Hot Springs	Owens River	Inyo
605.00	Deep Springs Lake	Deep Springs	Inyo
609.00	Amargosa River	Amargosa	Inyo, San Bernardino

APPROVALS REQUIRED

After adoption by the Lahontan Regional Board, Basin Plan amendments must be approved by the California State Water Resources Control Board, the California Office of Administrative Law, and the U.S. Environmental Protection Agency (USEPA). The proposed amendments will not directly lead to implementation of any specific projects which could physically change the environment. Therefore, the environmental document will not be used in permitting by any "responsible agencies" under CEQA. (The NOP was circulated to a mailing list of "trustee agencies" and other interested parties.)

Legislation adopted in 1997 requires the California Environmental Protection Agency, and its member agencies including the State and Regional Water Boards, before taking final action on new regulations, to submit information on the scientific basis for those regulations for external scientific peer review. The proposed amendments do not require peer review because they involve the application of scientific criteria which have already undergone public review and peer review.

ENVIRONMENTAL AND SOCIOECONOMIC SETTING

Figures 1 and 2 are maps of the North and South Lahontan Basins showing the general locations of the water bodies affected by the proposed amendments. Figures 4 through 6 are more detailed maps showing specific locations. Wendel and Amedee Hot Springs (both are actually *groups* of springs) are located northeast of Honey Lake. The ground

water associated with both springs has been developed for geothermal energy. Fales Hot Springs is the source of Hot Creek, a tributary to the Little Walker River and thence to the West Walker River. (This creek should not be confused with the better known Hot Creek near the Town of Mammoth Lakes.) The springs were developed in the past as part of a now inactive resort. Little Hot Creek and Little Alkali Lake are located in the upper Owens River watershed above Crowley Lake. Little Hot Creek has its source in hot springs within the Long Valley Caldera, which are used recreationally, and flows into the Owens River. The Keough Hot Springs are located in Inyo County, south of Bishop. These springs (both the developed headwaters and the undeveloped outflow) are actively used for recreation. Deep Springs Lake is a saline lake located in its own closed-basin watershed northeast of Bishop. The watershed is owned by Deep Springs College, a private community college, and the wetlands surrounding it support the unique black toad, *Bufo exsul*. The Amargosa River watershed has its headwaters in Nevada in Nevada and flows south, then north to terminate in Death Valley. It has great ecological importance as the river and associated wetlands provide habitat for a number of threatened and endangered plant and animal species. Most of these waters could be described as part of the Great Basin ecosystem, surrounded by sagebrush/grassland vegetation, or within transition areas between the Sierra Nevada and Great Basin ecoregions. The Amargosa River watershed is part of the Mojave Desert ecosystem.

The majority of the watershed lands for all of these waters are in public ownership (U.S. Forest Service, U.S. Bureau of Land Management, U.S. National Park Service, City of Los Angeles Department of Water and Power). Land uses within most of these watersheds may include range livestock grazing and dispersed recreation as well as the specific activities mentioned above. The small communities of Shoshone and Tecopa are located within the Amargosa River watershed.

All of the waters proposed for removal of the potential MUN are designated for a variety of human and aquatic life and wildlife uses, but site specific water quality objectives have not been established for any of them. Currently applicable objectives are the regionwide and watershed-specific numeric objectives, and for some waters, numeric objectives for receiving waters which apply upstream under the “tributary rule”.

BACKGROUND FOR PROPOSED AMENDMENTS

Designated beneficial uses are a part of California’s water quality standards, together with narrative and numerical water quality objectives, and antidegradation requirements. Objectives, which are analogous to federal “water quality criteria” may be set at natural background levels of water quality, or at levels which scientific evidence indicates are necessary for protection of beneficial uses. Beneficial uses include uses that are currently existing or that have existed since 1975. Beneficial uses also include potential uses, i.e., uses that may reasonably be expected to occur in the future. The term “beneficial use” includes natural ecosystem functions, and uses by plants, animals, and microorganisms, as well as human uses of water. Current standards for waters of the Lahontan Region are contained in the 1995 Basin Plan, as amended, and the USEPA’s “National Toxics Rule” (40CFR 131.26).

One goal of the federal Clean Water Act is to “restore and maintain the chemical, physical and biological integrity of the Nation’s waters” (Section 101 [a]). The USEPA’s Water Quality Standards Regulation (40 CFR 131.10) directs that State water quality standards “should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the water and take into account their [sic] use and value of public water supplies, propagation of fish, shellfish and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation”. The Regulation also states that “In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States”. The Water Quality Standards Regulation defines “existing uses” as “Those uses actually attained in the water body on or after November 28, 1975, whether or not they are included in the water quality standards”. (The November 1975 date is the effective date of the regulation.) “Designated uses” are uses “specified in water quality standards for each water body or segment whether or not they are being attained”.

The Water Quality Standards Regulation allows states to remove beneficial uses which are not existing uses if the State can demonstrate that attainment of the designated use is infeasible for one of a number of reasons. Reasons applicable to the changes in beneficial use designations proposed in these draft Basin Plan amendments include:

“(1) Naturally occurring pollutant concentrations prevent the attainment of the use; or

(2) Natural, ephemeral, intermittent or low flow conditions or water levels prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met...” (Conditions in the water bodies affected by the proposed amendments cannot be compensated for in the manner described in this section.)

At a minimum, uses are considered to be attainable if they can be achieved through the imposition of effluent limitations required under Sections 301(b) and 306 of the Clean Water Act for point sources, and through implementation of cost effective and reasonable best management practices (BMPs) for nonpoint sources. (Since the impairment of the water bodies affected by the proposed amendments is due to natural sources, attainment of the MUN use cannot be ensured through either effluent limitations or BMPs.)

In 1989, the RWQCB incorporated the State Water Resources Control Board’s “Sources of Drinking Water Policy”, Resolution 88-63, into the North and South Lahontan Basin Plans. The incorporation was retained when these plans were replaced by the 1995 Lahontan Basin Plan. To implement the policy, as part of the 1989 Basin Plan amendments, the Board also designated almost all of the surface and ground water bodies in the Lahontan Region for the Municipal and Domestic Supply (MUN) beneficial use. Only a few highly saline surface waters (Upper, Middle and Lower Alkali Lakes in Modoc County, Mono Lake in Mono County, and Searles Lake in Kern County) were

excluded from the MUN designation. (The MUN use for Honey Lake in Lassen County was subsequently removed as part of the 1993-95 Basin Plan update process.)

Prior to the 1989 amendments, most MUN designations were for waters *actually* used as drinking water sources, not for potential sources. One purpose of the MUN use designations adopted in 1989 was the identification of waters referred to in Proposition 65. Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986 (California Health and Safety Code Section 25249.5 *et seq.*) prohibits discharge of any chemical “known to the State to cause cancer or reproductive toxicity” to a potential source of drinking water, with certain exceptions.

The Regional Board staff report for the 1989 Basin Plan amendments (California RWQCB, 1989, page 3) listed the following reasons for not exempting most water bodies from the MUN use:

“ There is insufficient information on many water bodies for determination of long-term average water quality. Most ground water basins are not precisely mapped, and poor water quality in some wells does not necessarily mean an entire aquifer is unsuitable for MUN use...

The quality of some water bodies... fluctuates greatly from season to season and from year to year depending on precipitation, runoff and groundwater recharge. Such water bodies may be suitable for municipal use at least part of the time. ...

Some water bodies with high concentrations of salts or other minerals are currently being used as drinking water sources. ...

It may someday be technically and economically feasible to treat poor quality waters to potable quality levels. The Regional Board does not wish to preclude any reasonably feasible potential MUN uses [italics added].”

Relatively little quantitative water quality information is available for most of the saline or geothermal waters of the Lahontan Region which were designated for the MUN use in 1989. However, where chemical information is available, it shows that these waters generally have concentrations of total dissolved solids, or of trace elements such as arsenic, which exceed drinking water standards. Because of these exceedances, the Lahontan RWQCB placed a number of these “naturally impaired” waters on the Section 303(d) list.

Under the Sources of Drinking Water Policy, all surface and ground waters of the Lahontan Region are considered to be suitable, or potentially suitable, for municipal or domestic water supply and are so designated by the Regional Board with the exception of the following (italics added):

“1. Surface and ground waters where:

- a. The total dissolved solids (TDS) exceed 3,000 mg/L (5,000 uS/cm, electrical conductivity) and it is not reasonably expected by Regional Boards to supply a public water system, or*
- b. There is contamination, by natural processes that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or*
- c. The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.*

2. Surface waters where:

- a. The water is in systems designed or modified to collect or treat municipal or industrial wastewaters, process waters, mining wastewaters, or storm water runoff, provided that the discharge from such systems is monitored to assure compliance with all relevant water quality objectives as required by the Regional Boards; or,*
- b. The water is in systems designed or modified for the primary purpose of conveying or holding agricultural drainage waters, provided that the discharge from such systems is monitored to assure compliance with all relevant water quality objectives as required by the Regional Boards... .”*

All of the nine water bodies under consideration for removal of the potential MUN use meet the “Sources of Drinking Water Policy” exclusion criteria (Items 1a and 1b above), either because they have natural total dissolved solids levels exceeding the 3000 mg/L threshold (Deep Springs Lake, Little Alkali Lake, Amargosa River) or because they have naturally high concentrations of toxic trace elements (Wendel, Amedee, Fales, and Keough Hot Springs, Hot Creek, Little Hot Creek and Little Alkali Lake.) Table 2 summarizes the chemical criteria exceeded for each water body. The quantitative water quality information available for these waters is summarized in the separate technical staff report (California Regional Water Quality Control Board, 2000).

Although the Los Angeles Department of Water and Power (LADWP) is considering the feasibility of a treatment plant for arsenic removal in the Crowley Lake watershed (which includes Little Hot Creek and Little Alkali Lake), there are no current plans to treat these specific water bodies for domestic use, and the small amounts of water available would probably make treatment of these waters alone economically infeasible. Wendel and Amedee Hot Springs draw from a geothermal aquifer which is geologically separate from the drinking water aquifer which supplies the Honey Lake Valley. Fales Hot Springs and Hot Creek are hydraulically connected to the West Walker River, which is a higher quality water which also has a potential MUN use. The hot springs and creek are natural, historical tributaries of the river, and the creek is only one of about a dozen tributary streams, the rest of which are not geothermally influenced and therefore probably have

better quality. Removal of their potential MUN uses will not affect the quality of any future municipal supplies drawn from the West Walker River. Little Hot Creek and Little Alkali Lake are tributary to the upper Owens River and Crowley Lake and thus to the LADWP municipal supply. However, they contribute relatively small amounts of naturally poor quality water to that supply. Removal of the municipal use designation will not change the quality or quantity of their historical contributions to the higher quality water supply. Keough Hot Springs is also tributary to groundwater which is probably tributary to the Owens River. However, the flow is relatively small. Removal of the potential MUN use designation will not change the historical quality and quantity of discharges to surface and ground waters with existing or potential MUN designations.

Table 2. Summary of Compliance With Drinking Water Criteria for Nine “Naturally Impaired” Waters.

Water Body Name	Sources of Drinking Water Policy TDS Threshold Exceeded?	Parameters for Which Other Standards or Criteria are Exceeded	Water Quantity Considerations
Wendel Hot Springs	No	TDS, specific conductance, arsenic, sulfate, fluoride, sodium	Flow in natural springs reduced due to nearby geothermal development.
Amedee Hot Springs	No	TDS, sulfate, fluoride, boron, sodium	Flow in natural springs reduced due to nearby geothermal development.
Fales Hot Springs	No	TDS, specific conductance, sulfate, fluoride, arsenic, copper, molybdenum, lead aluminum	
Hot Creek	No	Specific conductance, fluoride, boron	
Little Hot Creek	No	Arsenic, beryllium, specific conductance, boron, lead, fluoride, antimony.	Annual flow ca. 1000 afa; evaporation increases salinity
Little Alkali Lake	Yes	TDS, Arsenic	Ephemeral
Keough Hot Springs	No	TDS	Flow 600 gallons per minute
Deep Springs Lake	Yes	TDS, specific conductance, pH	Ephemeral
Amargosa River	Yes (in Death Valley)	TDS, specific conductance, arsenic, sulfate, sodium, chloride, fluoride, boron.	Intermittent, variable annual flows

ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS

No comments on the September 1998 CEQA Notice of Preparation were received from trustee agencies or interested parties concerning potential environmental or socioeconomic impacts of the proposed amendments. The Environmental Checklist below concludes that the amendments will not have significant adverse environmental impacts.

Removal of potential MUN use designations will not in itself have direct physical impacts on the environment. It could have indirect impacts, by making it easier for the Board to approve new or expanded discharges to these waters (if such discharges could be permitted in the context of the waste discharge prohibitions applicable to each watershed). However, no new or expanded discharges are foreseeable at this time. The amendments are the result of an analysis of sources of impairment under Section 303(d) of the Clean Water Act.

The remoteness of most of the waters affected by these amendments from large population centers, the relatively small amounts of water involved, and the cost of current treatment technology make it unlikely that these waters will be in demand for municipal use in the future. Most of these waters, and their watersheds, are located within public lands. The lack of a MUN designation would not prevent the treatment and municipal use of these waters in the future, should it become feasible and desirable to do so. The U.S. Geological Survey (1996) reports that it costs between \$1,300-\$2,200 per acre-foot to desalinate seawater through the reverse osmosis method, compared to costs of about \$200 per acre-foot for water from normal supply sources.

The proposed amendments will not have any significant adverse socioeconomic impacts. The effects of the amendments on cleanup requirements for leaks and spills could lessen financial burdens for dischargers.

Environmental Checklist Discussion:

The checklist below is based on Appendix I to the California State CEQA Guidelines (as revised through 1997) “Yes”, “Maybe”, and “No” column headings have been substituted for headings related to level of significance of impacts, because the impacts of the proposed amendments will be indirect, and the level of significance of the indirect impacts is speculative and cannot be evaluated at this time.

The “Maybe (indirect, cumulative)” answer to Checklist Question IV(c), regarding Water impacts, reflects the possibility that removal of the MUN use from these waters could, together with separate Basin Plan amendments affecting the industrial waste discharge prohibition, facilitate approvals of new discharges to these waters. Such discharges could in turn have direct and indirect environmental impacts. Because no discharges to the waters in question are being proposed at this time and none are reasonably foreseen for the future, the potential cumulative impacts of the proposed MUN use removal are considered speculative. No further analysis is needed, and no mitigation or consideration of alternatives is required at this time. The Regional Board, as a responsible agency under CEQA, will review project-specific environmental documents, and will work with lead agencies to ensure that adequate mitigation for water quality related impacts is provided, before it considers permits for any new or expanded discharges to the waters affected by these amendments. This CEQA document should be considered the “functional equivalent” of a Negative Declaration.

	YES	MAYBE	NO
I. LAND USE AND PLANNING- <i>Would the proposal:</i>			
a. Conflict with General Plan designation or zoning?			X
b. Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?			X
c. Be incompatible with existing land use in the vicinity?			X
d. Affect agricultural resources or operations (e.g., impact to soils or farmlands, or impacts from incompatible land uses?			X
e. Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?			X
II. POPULATION AND HOUSING- <i>Would the proposal:</i>			
a. Cumulatively exceed official regional or local population projections?			X
b. Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure?			X
c. Displace existing housing, especially affordable housing?			X
III. GEOLOGIC PROBLEMS: <i>Would the proposal result in or expose people to potential impacts involving:</i>			
a. Fault rupture?			X
b. Seismic ground shaking?			X
c. Seismic ground failure, including liquefaction?			X
d. Seiche, tsunami, or volcanic hazard?			X
e. Landslides or mudflows?			X
f. Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?			X
g. Subsidence of land?			X
h. Expansive soils?			X
i. Unique geologic or physical features?			X
IV. WATER- <i>Would the proposal result in:</i>			
a. Change in absorption rates, drainage patterns, or the rate and amount of surface runoff?			X
b. Exposure of people or property to water related hazards such as flooding?			X
c. Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)?		X Indirect, cumulative	

	YES	MAYBE	NO
d. Changes in the amount of surface water in any water body?			X
e. Changes in currents, or the course or direction of water movements?			X
f. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?			X
g. Altered direction or rate of flow of groundwater?			X
h. Impacts to groundwater quality?			X
i. Substantial reduction in the amount of groundwater otherwise available for public water supplies?			X
V. AIR QUALITY- Would the proposal:			
a. Violate any air quality standard or contribute to an existing or protected air quality violation?			X
b. Expose sensitive receptors to pollutants?			X
c. Alter air movement, moisture, or temperature, or cause any change in climate?			X
d. Create objectionable odors?			X
VI. TRANSPORTATION/CIRCULATION: Would the proposal result in:			
a. Increased vehicle trips or traffic congestion?			X
b. Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			
c. Inadequate emergency access or access to nearby uses?			X
d. Insufficient parking capacity onsite or offsite?			X
e. Hazards or barriers for pedestrians or bicyclists?			X
f. Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			X
g. Rail, waterborne, or air traffic impacts?			X
VII. BIOLOGICAL RESOURCES- Would the proposal result in impacts to:			
a. Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?			X
b. Locally designated species (e.g., heritage trees)?			X
c. Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)?			X
d. Wetland habitat (e.g., marsh, riparian and vernal pool)?			X
e. Wildlife dispersal or migration corridors?			X

	YES	MAYBE	NO
VIII. ENERGY AND MINERAL RESOURCES- <i>Would the proposal:</i>			
a. Conflict with adopted energy conservation plans?			X
b. Use nonrenewable resources in a wasteful and inefficient manner?			X
c. Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?			X
IX. HAZARDS- <i>Would the proposal involve:</i>			
a. A risk of accidental explosion or release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation)?			X
b. Possible interference with an emergency response plan or emergency evacuation plan?			X
c. The creation of any health hazard or potential health hazard?			X
d. Exposure of people to existing sources of potential health hazards?			X
e. Increased fire hazard in areas with flammable brush, grass, or trees?			X
X. NOISE- <i>Would the proposal result in:</i>			
a. Increases in existing noise levels?			X
b. Exposure of people to severe noise levels?			X
XI. PUBLIC SERVICES- <i>Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:</i>			
a. Fire protection?			X
b. Police protection?			X
c. Schools?			X
d. Maintenance of public facilities, including roads?			X
e. Other government services?			X
XII. UTILITIES AND SERVICE SYSTEMS. <i>Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:</i>			
a. Power or natural gas?			X
b. Communications systems?			X
c. Local or regional water treatment or distribution facilities?			X
d. Sewer or septic tanks?			X
e. Storm water drainage?			X
f. Solid waste disposal?			X
g. Local or regional water supplies?			X

	YES	MAYBE	NO
XIII. AESTHETICS- Would the proposal:			
a. Affect a scenic vista or scenic highway?			X
b. Have a demonstrable negative aesthetic effect?			X
c. Create light or glare?			X
XIV. CULTURAL RESOURCES- Would the proposal:			
a. Disturb paleontological resources?			X
b. Disturb archaeological resources?			X
c. Have the potential to cause a physical change which would affect unique ethnic cultural values?			X
d. Restrict existing religious or sacred uses within the potential impact area?			X
XV. RECREATION- Would the proposal:			
a. Increase the demand for neighborhood or regional parks or other recreational facilities?			X
b. Affect existing recreational opportunities?			X
XVI. MANDATORY FINDINGS OF SIGNIFICANCE:			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			X
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?			X
c. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)		X (indirect)	
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X

Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant impact on the environment, and the functional equivalent of a NEGATIVE DECLARATION will be prepared.

 X

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case, because the mitigation measures included in the project description have been added to the project. The functional equivalent of a MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project may have a significant impact on the environment, and the functional equivalent of an ENVIRONMENTAL IMPACT REPORT is required.

Date

Signature

LIST OF PREPARERS

The draft Basin Plan amendments and this staff report/CEQA document (including the Use Attainability Analysis appendices) were written or edited by Judith Unsicker, Environmental Specialist IV (Specialist) at the RWQCB's South Lake Tahoe (SLT) office. The following additional staff (in alphabetical order) were involved in collection of information and/or review of the drafts:

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Alexandra Lutz, Student Assistant, SLT office

Hannah Schembri, Student Assistant (now Environmental Specialist I), SLT office

REFERENCES

(Citation of these documents is not meant to imply incorporation by reference, either into this CEQA document or into the Basin Plan.)

California Regional Water Quality Control Board, Lahontan Region, 1989. *Environmental Documentation for Proposed Amendments to the Water Quality Control Plans for the North and South Lahontan Basins Concerning the "Sources of Drinking Water Policy"*. February 1989

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California Regional Water Quality Control Board, Lahontan Region, 2000. *Use Attainability Analysis for Nine "Naturally Impaired" Waters of the Lahontan Region*.

U.S. Geological Survey, 1976. *Sources of Arsenic in Streams Tributary to Lake Crowley California*. Water-Resources Investigations 76-36.

U.S. Geological Survey, 1996. *Periodic Water Fact: Desalinization of Salt Water*. Available on the Internet: URL <<http://h2o.usgs.gov/public/watuse/wuweeklyfact.html>>

JEU/shT:munamdt2.doc

Table 3. Beneficial uses of affected surface waters which will remain after removal of the potential MUN use. Water bodies shown in bold text are those which will have new rows added to the Basin Plan beneficial use table for surface waters (Table 2-1).

HU No.	HYDRO-LOGIC UNIT/ SUBUNIT DRAINAGE FEATURE	WATERBODY CLASS MODIFIER	BENEFICIAL USES																				Receiving Water			
			M U N	A G R	P R O	I N D	G W R	F R S H	N A V	P O W	R E C - 1	R E C - 2	C O M M	A Q U A	W A R M	C O L D	S A L	W I L D	B I O L	R A R E	M I G R	S P W N	W Q E	FL D		
637.20	Wendel Hot Springs	Hot Springs		x			x	x		x	x	x						x				x				Honey Lake
637.20	Amedee Hot Springs	Hot Springs		x			x	x			x	x	x		x	x		x								Honey Lake
631.40	Hot Creek	Perennial Stream		x			x				x	x	x		x	x		x								Little Walker River
631.40	Fales Hot Springs	Springs		x			x				x	x	x		x			x								Hot Creek
603.10	Little Hot Creek	Perennial Stream		x			x	x			x	x	x			x		x				x				Hot Creek or Owens River
603.10	Little Alkali Lake	Alkali Lake		x			x	x			x	x	x			x		x				x				Crowley Lake
603.20	Keough Hot Springs	Springs		x			x				x	x	x		x	x		x								Owens River
609.00	Amargosa River	Intermittent Stream		x			x				x	x			x		x	x	x	x		x				Amargosa Subarea GW

NORTH LAHONTAN BASIN

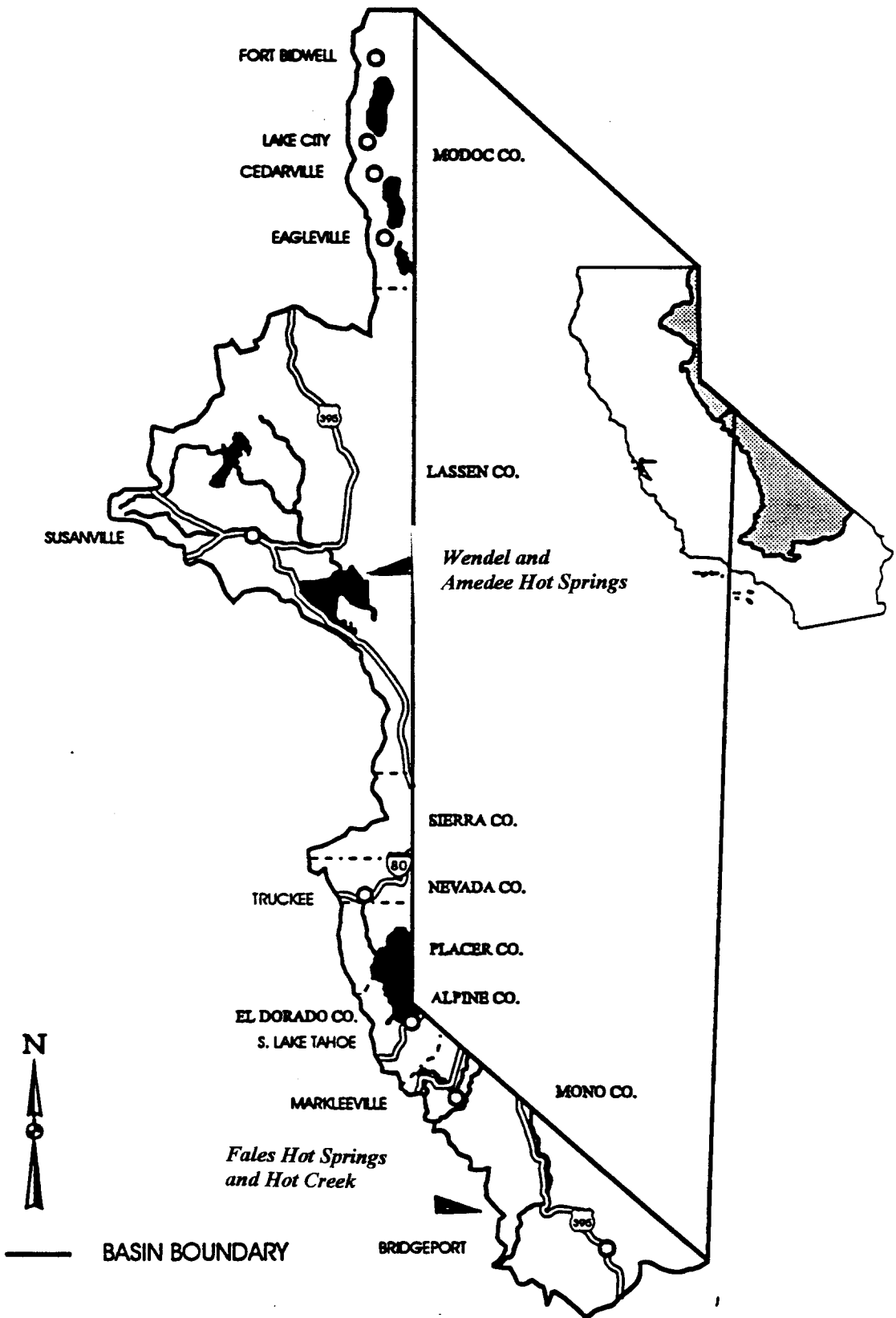
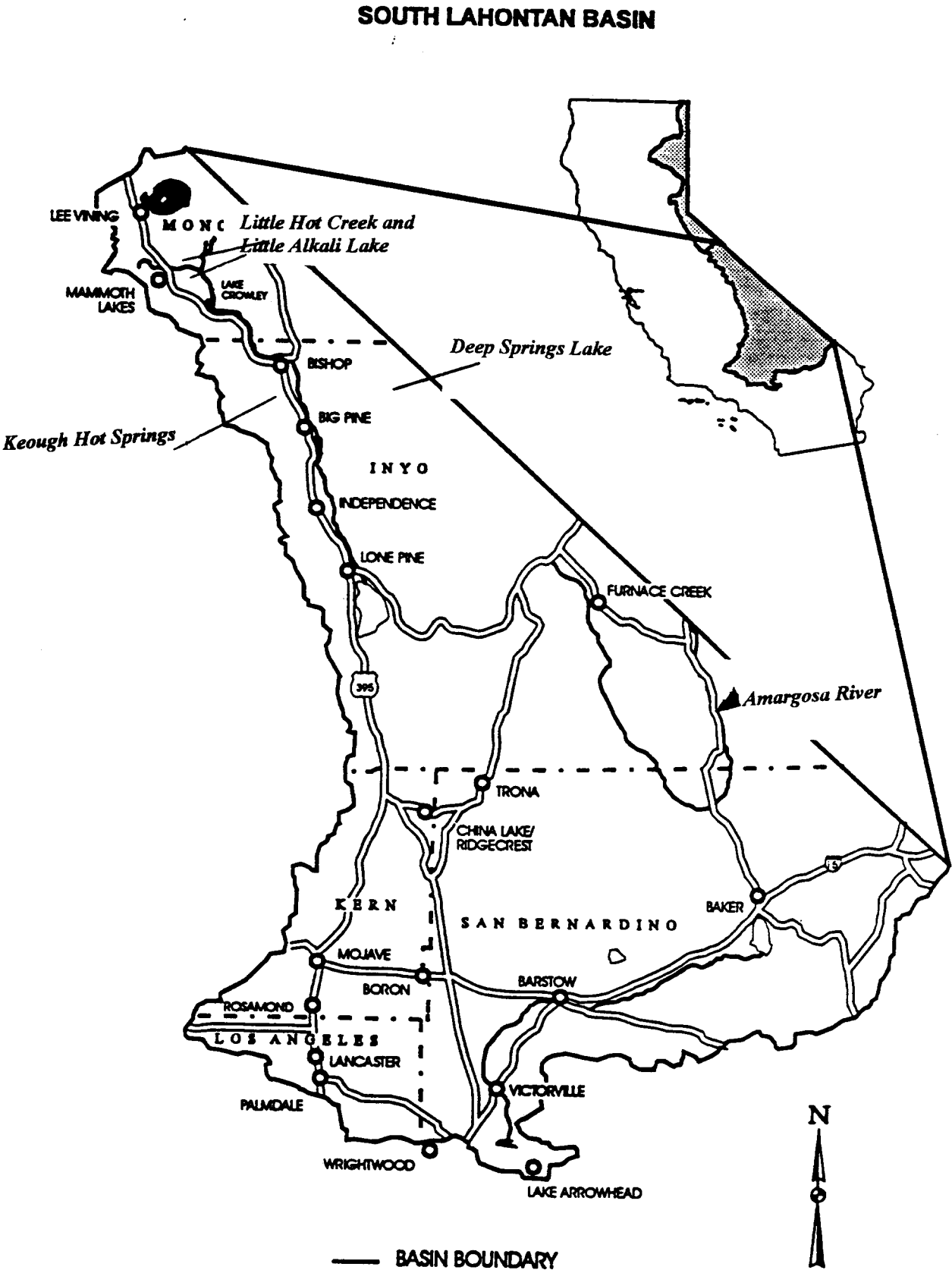


Figure 1. Map of North Lahontan Basin (Source: Lahontan Basin Plan)

Figure 2. Map of South Lahontan Basin (Source: Lahontan Basin Plan)



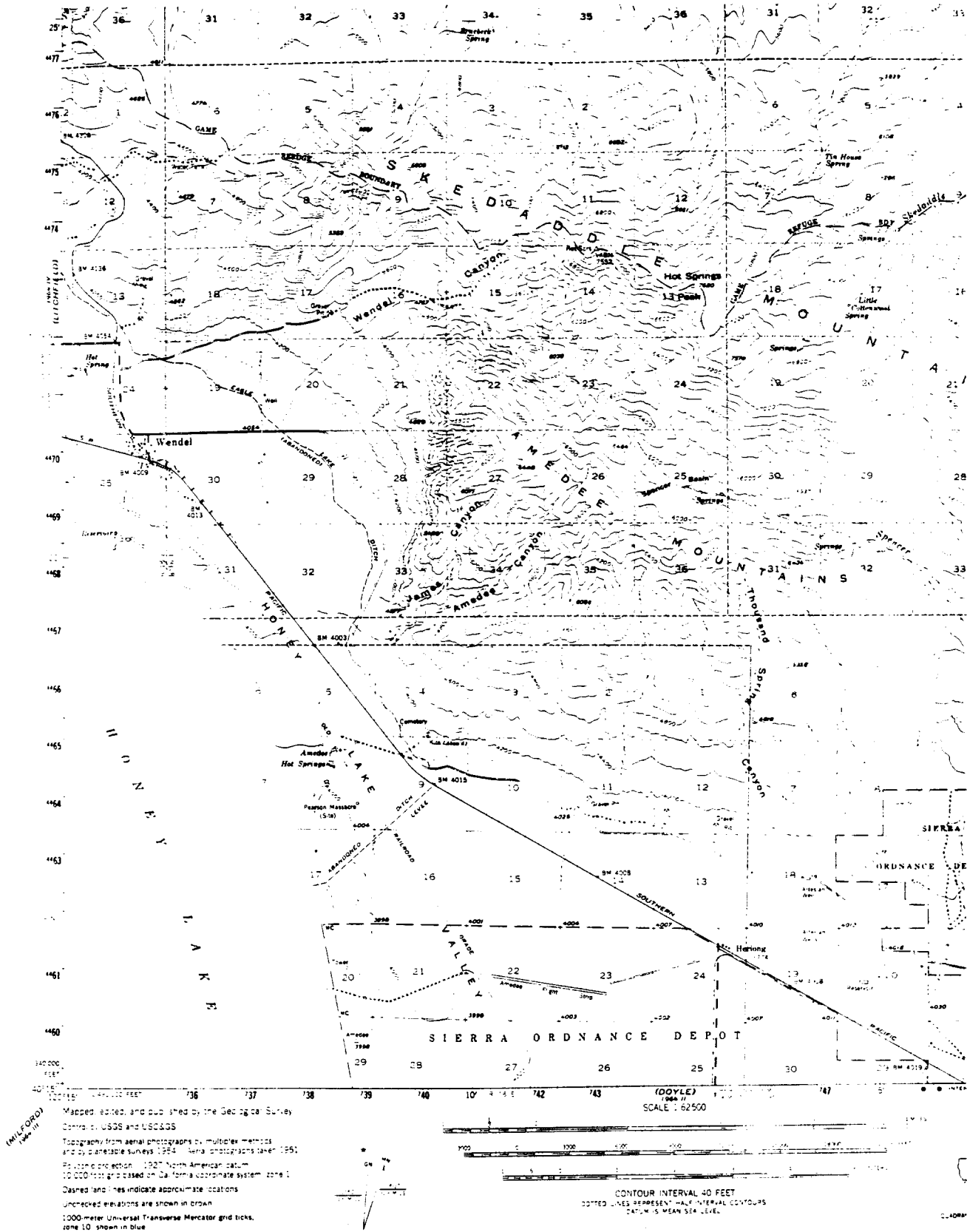


Figure 3. Locations of Wendel and Amedee Hot Springs, Lassen County. (Source: USGS Wendel Quadrangle, 15 Minutes)

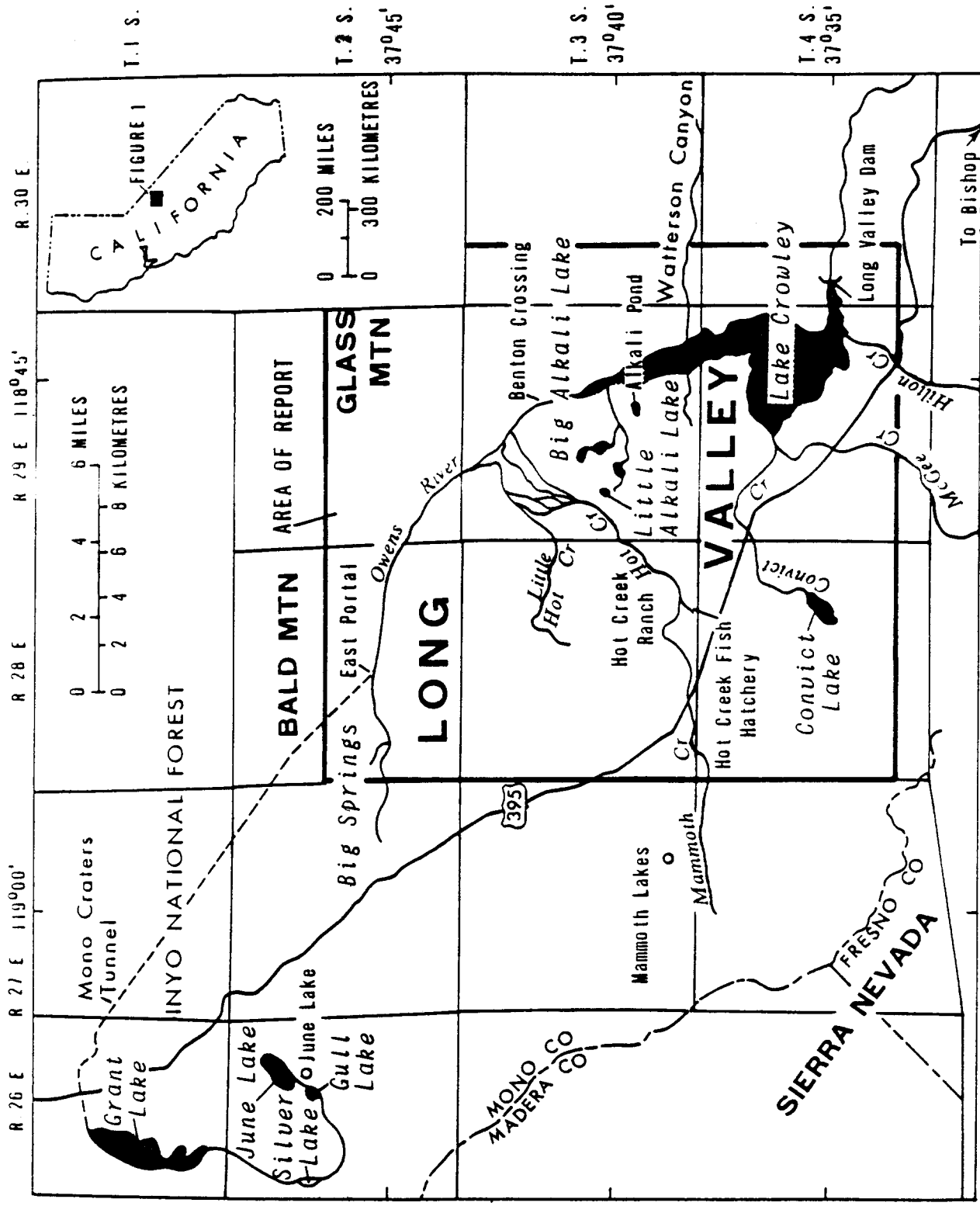
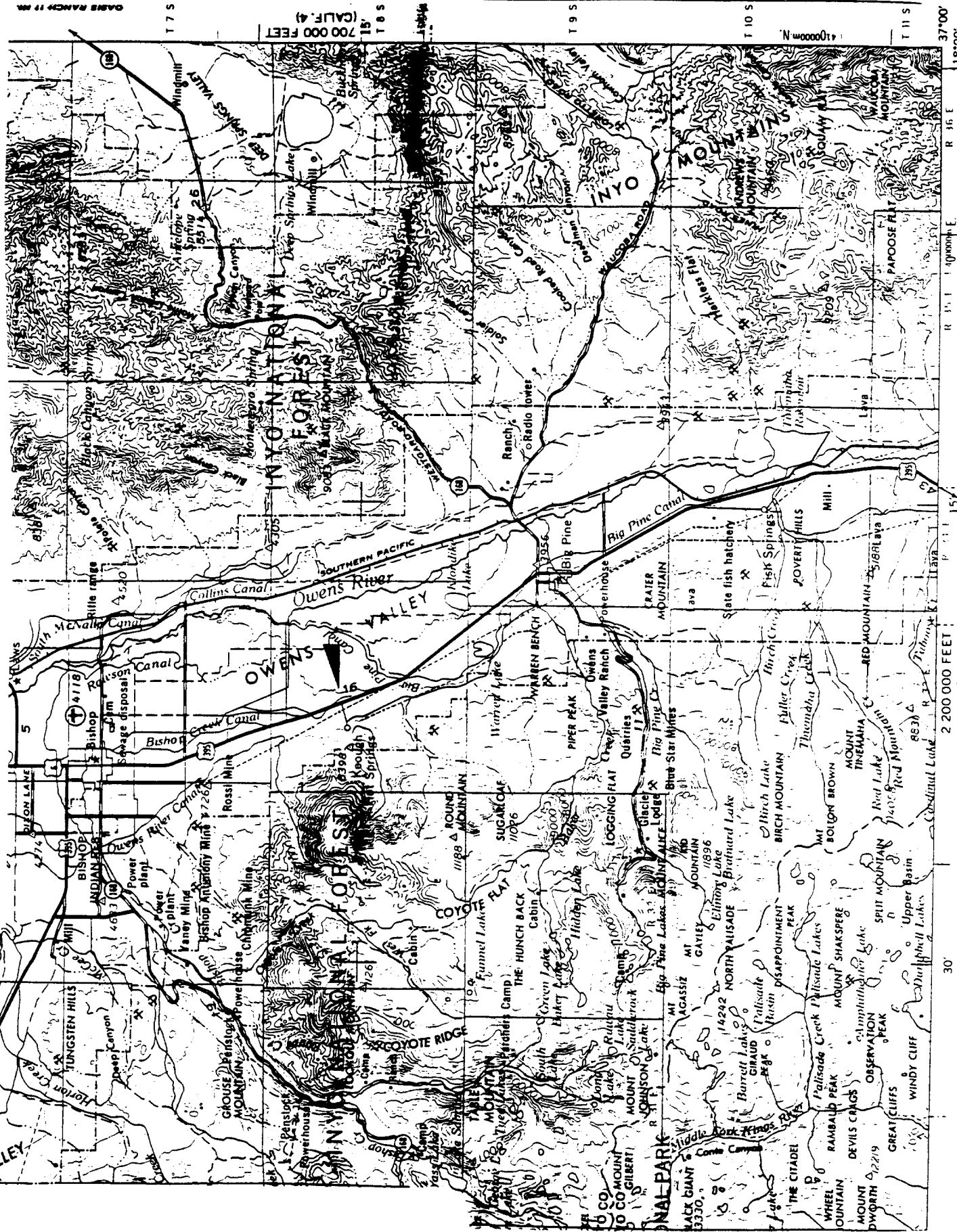


Figure 5. Locations of Little Hot Creek and Little Alkali Lake, Mono County.
(Source: USGS, 1976)

Figure 6. Locations of Keough Hot Springs and Deep Springs Lake, Inyo County.
(Source, USGS Mariposa Quadrangle, 1:250,000).



DRAFT

TEXT OF

PROPOSED AMENDMENTS TO THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION (BASIN PLAN)

April 2000

California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe CA 96150

Contact Person:

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PROPOSED AMENDMENTS TO THE WATER QUALITY CONTROL PLAN FOR THE LAHONTAN REGION

This document contains proposed changes to the *Water Quality Control Plan for the Lahontan Region* (Basin Plan), which will be considered for adoption by the Lahontan Regional Water Quality Control Board. Page, paragraph, and sentence references to the text of the current Basin Plan (as amended through August 1995) are included. The rationale for some of the amendments is given in italics after the proposed language changes. More detailed background information for some of the amendments is provided in a separate staff report. Amendments are grouped by topics as indicated in the Table of Contents. Proposed changes are arranged in numerical order within each group by chapters, pages, sections and paragraphs.

I. EDITORIAL REVISIONS: MINOR CLARIFICATIONS AND CORRECTIONS TO BASIN PLAN TEXT, AND REFERENCES TO NEW/REVISED LAWS, PLANS, AND REGULATIONS

The proposed changes in this section of the draft Basin Plan amendments are informational, including references to new or revised regulatory language which has already been approved separately. They are not new regulations. Therefore, they need not undergo scientific peer review or be approved by the California Office of Administrative Law.

Except for new or extensively rewritten sections of the plan, deletions are shown in strikeout font and additions are underlined. Explanations of the reasons for some of the proposed changes are in italics below the revised language where appropriate. Final amendments will be in the same font and two column format as the existing Basin Plan; page numbers may change due to additions and deletions. In order to simplify final formatting of the amendments, text which will include quotation marks in the final amendments is shown with "double quotes", even though standard usage guidance would result in the use of "single quotes within double quotes" in the draft amendment language below.

A. Proposed Changes to Introductory Pages:

Revise Title Page as follows:

Update South Lake Tahoe address and telephone numbers for both office, as follows:

~~2092~~ 2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
~~(916)~~ (530) 542-5400
FAX ~~(916)~~ (530) 544-2271

15428 Civic Drive, Suite 100
Victorville, CA 92392-2383
(619) (760) 241-6853
FAX (619) (760) 241-7308

Add the following wording below the logo on the title page:

"Plan effective March 31, 1995, amendments effective August 1995 and [insert Office of Administrative Law Approval Date] 2000"

Replace the entire text of the current "Preface" with the following:

"This *Water Quality Control Plan for the Lahontan Region* (Basin Plan) incorporates language from and replaces three earlier plans: the Lahontan Regional Board's 1975 North and South Lahontan Basin Plans, as amended through 1991, and the State Water Resources Control Board's 1980 *Lake Tahoe Basin Water Quality Plan*, as amended through 1989. The earlier plans were combined into a single plan which was adopted by the Lahontan Regional Board in November 1994 and which took effect upon approval by the California Office of Administrative Law in March 1995. The current Basin Plan also incorporates important provisions of the Tahoe Regional Planning Agency's *Water Quality Management Plan for the Lake Tahoe Region*. This Basin Plan was prepared almost entirely by Regional Board staff, using an interdisciplinary approach (see List of Preparers, Appendix A).

The plan is in looseleaf format to facilitate future revisions. Amendments to date are listed on the "Record of Amendments" page near the front of the plan. The date at the bottom of each page of the plan reflects the latest date of amendment of that page. "Original" pages are dated 10/94. Copies of this plan and of future amendments will be distributed to county libraries throughout the Lahontan Region, to the State Library, and to university libraries or water resources archives. The plan is available in electronic form through the Lahontan Regional Board's Internet homepage at <http://www.mscomm.com/~rwqcb6> and future draft amendments will also be made available on the Internet. The plan can also be purchased in computer disk format. The Basin Plan and related documents may be examined at the Regional Board's offices during normal business hours.

Public participation is an important part of the Basin Plan update process. Responses to public comments are part of the administrative record. The Regional Board maintains and periodically updates mailing lists of persons, agencies, and organizations interested in receiving notices of public hearings and workshops for future Basin Plan amendments.

To be added to the Basin Plan mailing list, or for information on purchasing a paper or disk copy of the plan, contact either office of the Lahontan Regional Board.

2501 Lake Tahoe Boulevard
South Lake Tahoe CA 96150
(530) 542-5400

15428 Civic Drive, Suite 100
Victorville CA 92392-2583
(760) 241-6583"

Add a new "Record of Amendments" page following the Preface, as follows. The resolution number for adoption of the June 2000 amendments, and the adoption and effective dates, will be added after final approval of the amendments.

**"Record of Amendments to the 1995 Water Quality Control Plan for the
Lahontan Region**

Subject	Date Adopted by Regional Board	Regional Board Resolution No.	Date in Effect*
1. Amendments revising boundaries of and language related to Cady Springs septic system prohibition area in Lassen county, and making miscellaneous editorial changes.	4/21/95	6-95-54	8/___95
2. Amendments including miscellaneous editorial changes; delegation of authority regarding Lake Tahoe and Truckee River watershed prohibition exemptions; delegation of authority regarding septic system regulations; revision of regionwide industrial waste discharge prohibition; and changes in beneficial uses of waters of Searles HA	6/___00	6-00-___	

- * Basin Plan amendments approved by the Regional Board do not take effect until approved by the State Water Resources Control Board and the California Office of Administrative Law. If an amendment involves adopting or revising a standard which relates to surface waters, it must also be approved by the U.S. Environmental Protection Agency (USEPA) [40 CFR Section 131 (c)]. If the revised standard is disapproved by the USEPA, it remains in effect until revised through the basin planning process, or until the USEPA promulgates its own rule which supersedes the revised state standard [40 CFR Section 131.21(c)]."

Update Table of Contents, List of Tables, List of Figures, and Index to reflect page number changes as a result of amendments.

B. Proposed Changes to Chapter 1, “Introduction”:

Page 1-1, third paragraph, delete last sentence:

~~“The staff of the Planning and Toxics Section within the South Lake Tahoe office are responsible, with input for other staff of both offices, for the planning activities for the entire Region.”~~

(The Planning and Toxics Unit was disbanded in early 1998.)

Page 1-3, third paragraph under “Regional Setting”, change second sentence to read:

~~“The Region includes the eastern slopes of the Warner Mountains and the Sierra Nevada, the northern slopes of the San Bernardino and San Gabriel Mountains; Sierra Nevada, San Bernardino, Tehachapi, and San Gabriel Mountains, the southern slopes of the Tehachapi Mountains, and all or part of other ranges including the White, Providence, and Granite Mountains.”~~

Page 1-4, first full paragraph, change second sentence to read:

~~“These range from remnants of Native American irrigation systems to Comstock mining era ghost towns such as Bodie and 1920s resort homes at Lake Tahoe and Scotty’s Castle at Death Valley (Scotty’s Castle).”~~

Page 1-4, second full paragraph, Change second sentence to read as follows:

~~“While the permanent resident population of the Region (about 800,000 in 1995 500,000 in 1990) is low in relation to that of more urbanized Regions...”~~

(The increased population estimate is based on California Department of Finance projections for 1995, cited in California Department of Water Resources, 1998, The California Water Plan Update, Bulletin 160-98, Public Review Draft.)

Page 1-6, add at end of second paragraph under “Basin Plan Amendment Procedures”:

“Legislation in 1997 added a requirement for scientific peer review of amendments involving scientific justification. Peer review occurs before draft amendments are released for public review.”

C. Proposed Changes to Chapter 2, “Beneficial Uses”:

Page 2-5, last paragraph. Revise fourth sentence to read:

“For example, SPWN has been added to Hot Creek in the Owens River watershed.”

(There are at least two Hot Creeks in the Lahontan Region.)

Page 2-5, second full paragraph: Change second sentence to read:

“This designation has been added for ~~all~~ many surface waters in the Region.”

(The Commercial and Sport Fishing (COMM) use designation was not added in 1995 for all of the waters in Table 2-1.)

Page 2-5, Add the following new paragraph after the second full paragraph on the NAV use:

Recreation uses (both Water Contact Recreation, or REC-1, and Non-contact Water Recreation, or REC-2) have been designated for all surface waters of the Lahontan Region. The REC-1 designation meets the intent of the “swimmable” goal of the federal Clean Water Act. Because of the possibility of ingestion, the USEPA expects states to set bacteriological criteria sufficient to support primary contact recreation. The Lahontan Regional Board’s regionwide water quality objective for coliform bacteria, which provides that “waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources including human and livestock wastes”, is more stringent than the USEPA’s current (1986) bacteria criteria for recreational waters, which allow specific minimum concentrations of *Escherichia coli* and enterococci (criteria cited in USEPA, 1998). The USEPA’s water quality standards guidance (USEPA, 1993 and 40 CFR 131.10) recognizes that recreation in and on the water may not always be attainable in certain waters, such as wetlands, that do not have sufficient water, at least seasonally, and that “In certain instances, people will use whatever water bodies are available for recreation, regardless of the physical conditions.” Although some of the alkaline lakes and geothermal springs of the Lahontan Region may have chemical quality unfit for ingestion, they are generally located within public lands. It would be difficult to show that no public access to a specific water body for water contact recreation has occurred since the adoption of the USEPA water quality standards regulation in 1975, as required for removal of the REC-1 use. The REC-2 use depends to some extent on land uses around surface water bodies, but water quality objectives, including nondegradation, which are designed to protect natural water quality, will help to protect this use. The “aesthetic enjoyment” component of the REC-2 use is an important consideration in efforts to preserve the clarity and deep blue color of Lake Tahoe, and to prevent eutrophication of other oligotrophic waters.

(The language above is proposed to clarify the applicability of recreational uses, because of questions which have arisen since 1995. The 1995 Basin Plan already contains similar explanations for other uses.)

Page 2-6, under “Hydrologic Unit/Subunit/Drainage/Feature”, add at the end of the paragraph:

“Hydrologic Units in Table 2-1 are listed in order from north to south. HU numbers, which were originally assigned by the California Department of Water Resources, do not reflect this north to south order. For example, the East Walker River HU (#630.00) is just north of the Mono HU (601.00).”

Page 2-6. Add at end of right column:

Tributary rule. Table 2-1 does not specifically name all surface waters of the Lahontan Region. Waters not mentioned by name are included in the categories “Minor Surface Waters” and “Minor Wetlands” within each Hydrologic Unit or Hydrologic Area. Beneficial uses are designated for these categories. However, additional beneficial uses may apply to waters within these categories under the “tributary rule”, which provides that water quality standards for specific waterbodies apply upstream to tributaries for which no site-specific standards have been adopted.

(This language is being added to the Key to Table 2-1 for clarification. The tributary rule is already referenced on page 2-3 of the Basin Plan.)

Correct typographical errors in Table 2-1 "Beneficial Uses of Surface Waters of the Lahontan Region, as shown in the following recommendations for pages 2-13 through 2-43. *(Most of these water bodies were not listed by name in the 1975 North and South Lahontan Basin Plans, and had the beneficial uses, such as aquatic habitat uses, designated for broad categories such as "Minor Streams and Springs" of a particular Hydrologic Unit. These categories were separated into "Minor Surface Waters" and "Minor Wetlands" in the 1995 Basin Plan. Some of the previously designated uses were inadvertently left out of certain new waterbody- specific entries in Table 2-1 of the 1995 plan, and these uses are now being recognized through the changes below.)*

Page 2-13, HU No. 637.20, Susan River HA (continued), Wendel Hot Springs. Add "Xs" in the "WARM" and "COLD" use columns, to give these springs the same aquatic habitat uses as "Minor Surface Waters" of their HA.

Page 2-14, HU No. 637.40, Snowstorm Mountain HA, Snowstorm Creek. Remove "X" from "PRO" column.

Page 2-17, HU No. 633.20, Upper West Fork Carson River Hydrologic Area, Valley Slopes Wetlands. Add an "X" in the "COLD" use column, to give these wetlands the same aquatic habitat designation as "Minor Wetlands" of their HA.

Page 2-18, HU No. 632.10, Markleeville HA (continued), Wetland/Big Springs to Hwy. 89. Remove "X" from "PRO" column.

Page 2-19, HU No. 631.10, Antelope Valley HA, West Walker River (Below Walker). Remove "X" from "PRO" column.

Pages 2-25 and 2-26, Upper Owens HA (continued), Chalfant Valley Watershed. Add "Xs" in the "WARM" and "COLD" use columns for the following water bodies to give them the aquatic habitat uses of "Minor Wetlands" of their HA:

- Wetlands/Meadow left of Pine Creek Road
- Wetlands/Lower Birch Creek (HWY 168, Elev 5700')
- Wells Upper Meadow Wetlands
- Wetlands/Half Km NW of Warren Lake
- Wetlands/Half Km West of Warren Lake
- Wetlands/Well North of Klondike Lake
- Wetlands/East Side of Owens Valley, 0.5 Km N of HW
- Wetlands/E. Side of Owens Valley
- Uhlmeier Springs

Pages 2-26 and 2-27, Lower Owens HA, Add "Xs" in the "WARM" and "COLD" use columns for the following water bodies to give them the aquatic habitat uses of "Minor Wetlands" of their HA:

- Wetlands/Alkali Flat East of Owens River, Dolomite
- Wetlands/Dolomite
- Spring N of Shepherd Creek
- Wetlands/East of Movie Flat
- Wetlands/Hwy 395
- Wetlands/Fault Scarp W of Mt Whit Cemtry Lone Pine
- Seep West of Horseshoe Meadow Road
- Wetlands/Pheasant Club East of Tuttle Creek Rd
- Seep North of Movie Flat
- Wetlands/Lone Pine Narrow Gorge Road
- Wetlands East of Stevens Canal
- Fort Independence Indian Reservation [Wetlands]
- Wetlands/Spr E of Shabbel Ln. N of Independence
- Springs S of Keeler
- Cerro Gordo Spring
- Dirty Socks Hot Spring
- Spring NE of Olancho

Page 2-27, HU No. 603.30, Lower Owens HA (continued), Springs S. of Keeler and Cerro Gordo Spring, Remove "Xs" from "PRO" column for both water bodies.

Page 2-37, Table 2-1, Trona Hydrologic Unit (HU No. 621.00), Searles Dry Lake Bed. Correct a typographical error by moving the "X" in the column for the AGR use to the column for the PRO use.

Page 2-42. HU No. 628.20, Upper Mojave Hydrologic Area. Arrowbear Lake. Remove the "X" in the PRO column. *(As noted on page 2-4 of the Basin Plan, a PRO use was added for the surface waters of Searles Lake in the Basin Plan amendments which took effect in 1995. There was no AGR use designated for the Searles Lake bed in the 1975 Basin Plan, and addition of such a use was not a part of the 1993-1995 amendment process.)*

Page 2-42, under Mojave Hydrologic Unit, HU # 628, Sugarloaf Spring entry, correct inaccurate spelling "Majave" in Receiving Water column.

Page 2-43, HU No. 628.42, Opal Mtn. Springs. This water body is shown with no beneficial uses except for water quality enhancement (WQE). "X"s should be added in the columns for the MUN, AGR, GWR, REC-1, REC-2, WARM, COLD, WILD, RARE, and FLD uses, to give this water body the same uses as "Minor Wetlands " of its Hydrologic Area.

Note: Table 2-1 has duplicate entries for Goldstone Lake (page 2-35, HU No. 617.00) and Koehn Lake (page 2-40, HU No. 625.00). In each case, there are differences in the beneficial uses for the two entries. Before the next general update of the Basin Plan, Regional Board staff will review available data and determine which beneficial use designations should actually apply.

D. Proposed Changes to Chapter 3, "Water Quality Objectives":

Page 3-1, second paragraph. Change to read as follows:

"The water quality objectives in this Basin Plan supersede and replace those contained in :
The 1975 *Water Quality Control Plan for the North Lahontan Basin*, as amended through 1990, and

The 1975 *Water Quality Control Plan for the South Lahontan Basin*, as amended through 1990-, and

The 1980 *Lake Tahoe Basin Water Quality Plan*, as amended through 1989.

~~Upon approval by the State Board and the California Office of Administrative Law (OAL), the proposed revisions in objectives for waters of the Lake Tahoe Basin will supersede and replace the corresponding objectives in the Lake Tahoe Basin Water Quality Plan, as amended through 1989. When considering approval of these, and any~~

~~other provisions of the revised Lahontan Basin Plan affecting the Lake Tahoe Basin, the State Board may consider rescission of the separate Lake Tahoe Basin Plan.”~~

(The State Board rescinded the separate Lake Tahoe Basin Water Quality Plan in January 1996.)

Page 3-2. Add this sentence at end of second full paragraph:

“Since 1997, scientific peer review has been required for changes in regulations, including water quality objectives, which require scientific justification.”

Page 3-2. Add new subsection after the existing subsection on “Establishment of Numerical Objectives for Specific Water Bodies”, as follows:

Tributary Rule

Site-specific narrative and numerical water quality objectives have not been designated for all waters of the Lahontan Region. Where objectives are not specifically designated, objectives for downstream surface waters, or downgradient groundwater aquifers, apply to upstream or upgradient tributaries.

(This language is added for clarification. The tributary rule is already cited on page 3-13, but experience has shown that it is not always understood by the public, and it needs additional emphasis.)

Page 3-13. Add the following narrative objective between objectives for “Chemical Constituents” and “Radioactivity”:

“Pesticides

For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides, and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi, or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code Section 12753).

Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediment. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.

Waters designated as MUN shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations specified in Table 64444-A of Section 64444 (Organic Chemicals) of Title 22 of the California Code of Regulations which is incorporated by reference into this plan. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.”

(The language above is identical to the current pesticide objective on Pages 3-5 and 3-6 of the Basin Plan under the heading “Water Quality Objectives Which Apply to All Surface Waters”, and is being added to the ground water section for clarification. The Regional Board’s “no detectable pesticides” objective has always been applied to both surface and ground waters. The 1975 Basin Plans referred to “the summation of concentrations” of pesticides “in all waters of the basin”, although the objective was included with surface water objectives. There was no intent in the 1995 Basin Plan revisions to restrict the applicability of the objective to surface waters. It is appropriate to keep the references to bottom sediments and aquatic invertebrates because sediment “pore water” may be considered ground water, and because aquatic invertebrates are known to occur in the “hyporheic zone” of ground water beneath and surrounding streams.

Page 3-16. Change subsection on “References to Means...” to read as follows:

“References to “Means”(e.g., annual mean, log mean, mean of monthly means), “Medians”, and “90th percentile values”:

“Mean” is the arithmetic mean of all data. **“Annual mean”** is the arithmetic mean of all data collected in a one year period.” **“Mean of monthly means”** is the arithmetic mean of 30 day averages (arithmetic means). A logarithmic or “log mean” (used in determining compliance with bacteria objectives) is calculated by converting each data point into its log, then calculating the mean of these values, then taking the anti-log of this log-transformed average. The **median** is...”

(An explanation of the term “log mean” is proposed as a result of questions from the public.)

Page 3-17. Add new section at end of current text:

“Variances from Water Quality Objectives

The USEPA allows states to grant variances from water quality standards under the narrow circumstances summarized below (USEPA Water Quality Standards Handbook, Second Edition, 1993, Chapter 5). Such variances must be “built into” the standards themselves, and thus variances cannot be granted in California without Basin Plan amendments.

According to the USEPA, variances from standards “are both discharger and pollutant specific, are time-limited, and do not forego the currently designated use”. The USEPA recommends use of variances instead of removal of beneficial uses when the State believes that standards can ultimately be attained. Variances can be used with NPDES permits to ensure reasonable progress toward attainment of standards without violation of Clean Water Act Section 402(a)(1), which requires NPDES permits to meet applicable water quality standards.

The USEPA “has approved State-adopted variances in the past and will continue to do so if:

- each individual variance is included as part of the water quality standard;
- the State Demonstrates that meeting the standard is unattainable based on one or more of the grounds outlined in 40 CFR 131.10 (g) for removing a designated use;
- the justification submitted by the state includes documentation that treatment more advanced than sections 303(c)(2) (A) and (B) has been carefully considered, and that alternative effluent control strategies have been evaluated;
- the more stringent State criterion is maintained and is binding upon all other dischargers on the stream or stream segment;
- the discharger who is given a variance for one particular constituent is required to meet the applicable criteria for other constituents;
- the variance is granted for a specific period of time and must be rejustified upon expiration but at least every 3 years (Note: the 3-year limit is derived from the triennial review requirements of section 303(c) of the Act.);
- the discharger either must meet the standard upon the expiration of this time period or must make a new demonstration of “unattainability”;
- reasonable progress is being made toward meeting the standards; and
- the variance was subjected to public notice, opportunity for comment, and public hearing. (See section 303(c)(1) and 40 CFR 131.20.) The public notice should contain a clear description of the impact of the variance upon achieving water quality standards in the affected stream segment.”

(The “section” references in the quoted language above are to the Clean Water Act. As used in this language, “criteria” and “criterion” are equivalent to California’s “water quality objective[s]”). “

(The language above is proposed to be added for clarification, since the question of variances has arisen since adoption of the 1995 Basin Plan. The new language summarizes existing USEPA policy.)

Page 3-7, first paragraph, update citation of *Standard Methods for the Examination of Water and Wastewater* by changing publication year from 1992 to 1998.

Page 3-14- Change last two sentences of the next to last paragraph under “Part Three” heading to read:

“To date, the only California waters designated ~~as~~ as ONRWs ~~is~~ are Lake Tahoe and Mono Lake. However, other California waters would certainly qualify.”

Since the approval of the Basin Plan, the State Board has designated Mono Lake an Outstanding National Resource Water (ONRW).

Page 3-16, right column, paragraph on bacterial analyses, update citation of *Standard Methods for the Examination of Water and Wastewater* by changing publication year from 1992 to 1998.

Page 3-38 Correct the spacing errors in footnotes b and c to table 3.13, which result in letters and words being run together.

Page 3-48. Replace Figure 3-10 with the corrected figure attached to this draft. Changes include addition of an Arrow #1 showing the location of the “Owens River (above East Portal) station, and relocation of Arrow #2 to show the correct location of the “Owens River (below East Portal)” station.

Page 3-52. Make the following changes to Table 3-20:

Change heading of second column to read:

“Surface Waters (Station 2)
Ground Waters (Stations 1,3, 4, 5, &6)”

In first column, second row, change the superscript for Station 1 from “a” to “b”.

E. Proposed Changes to Chapter 4, “Implementation”:

Page 4-1, third paragraph. Revise last sentence to read:

Detailed descriptions of waterbodies with their specific water quality problems ~~and recommended control actions~~ are included in the Region’s ~~Water Quality Assessment database and Fact Sheets~~ Geospatial Waterbody System (GeoWBS) database.”

(Since approval of the 1995 Basin Plan, the State and Regional Boards have changed their Section 305(b) reporting software from the Water Quality Assessment database to the Waterbody System (WBS) and then the GeoWBS databases.)

Page 4-1, sixth paragraph. Change last sentence to read:

“The Regional Board can also be party to official agreements with other agencies, such as memoranda ~~um~~ of understandings (MOUs) or management agency agreements (MAAs), which recognize and rely on the water quality authority of other agencies.”

Page 4-2, Section under “Waste Discharge Requirements (WDRs)” heading, change third sentence to read as follows:

“Regional Waters Boards are authorized to review WDRs periodically.”

Page 4-3 Add new bullet to “Enforcement Actions” section, above the bullet on “Notice of Violation”, as follows:

- A written **Notice to Comply** can be issued for minor violations during field inspections by Regional Board staff, at the discretion of the inspector. The notice is issued to a representative of the facility being inspected, and states the nature of the alleged violation, a means to comply, and a time limit for compliance (not to exceed 30 days). The violator must sign and return the notice to the Regional Board within five working days of achieving compliance. If compliance is achieved within the stated time limits, and if the case is not subject to a fine under federal law, the violation is not subject to civil penalties. (The law establishing the authority for the Notice to Comply does not limit the Regional Board’s authority for criminal enforcement or its ability to cooperate in criminal enforcement proceedings.) The Regional Board may take other enforcement actions upon failure to comply or if necessary to prevent harm to public health or the environment. A Notice to Comply cannot be used for a knowing, willful, or intentional violation, for a case where the violator benefits economically for noncompliance, for chronic violations, or a recalcitrant violator, or for violations which cannot be corrected within 30 days.“

The “Notice To Comply” process was established by legislation effective January 1, 1997 (California Water Code Chapter 5.8, commencing with Section 13399).

Page 4-3. Add new paragraph at the end of the “Enforcement Actions” section, as follows:

State Water Resources Control Board Resolution 92-49, as amended, includes statewide policies and procedures for investigation and cleanup and abatement of discharges under Water Code Section 13304. The statewide Water Quality Enforcement Policy (State Board Resolution 97-085 provides direction on types of violations which shall be brought to the attention of Regional Boards by staff, on procedures for coordination and cooperation with other agencies, and on setting amounts for Administrative Civil Liabilities. Copies of both of these policies are included in Appendix B to this Basin Plan)

Page 4-4. Add at end of third line:

“See Section 4.13 of this chapter for more information on TMDLs.”

Page 4-4, first full paragraph. Change last two sentences to read as follows:

~~“Priorities are set on a short-term basis for studies through the State Board’s use of the Clean Water Strategy ranking system in various grant programs, processes such as the Regional Board’s periodic revisions to its Watershed Management Initiative Chapter, and for facilities construction through the State Board Division of Clean Water Programs needs assessment process for loans and grants. Once funding is allocated, completion schedules are set through the contract process.”~~

(The concepts of the Clean Water Strategy have been incorporated into the more comprehensive Watershed Management Initiative process.)

Page 4-4, second paragraph under “Interstate Issues”; change last sentence to read:

“Impacts of ~~ground water~~ pumping in Nevada on ground water supplies in Death Valley, and impacts of radioactivity from the Nevada Test Site on ~~Death Valley~~ ground water quality in Death Valley, are also of concern.”

Page 4-4, last paragraph, fifth line: Add apostrophe to the word “states” at the end of the line.

Page 4-7. Add new subsection after end of left column, before “Specific Types of Activities...” heading, as follows:

Watershed Management Initiative

In 1995, as part the development of a Strategic Plan, the State and Regional Boards began implementation of a “Watershed Management Initiative” (WMI). The WMI involves coordinating most of the Regional Board’s planning, monitoring and assessment, and regulatory activities with public and private stakeholders within “priority watersheds”, and encouraging voluntary implementation of BMPs and watershed restoration projects by stakeholders. Five priority watersheds were selected within the Lahontan Region, with the expectation that priorities will be rotated to other watersheds in the future. Workplans, including proposed implementation activities and projected staff time and funding needs for a five year period, have been written for the priority watersheds as part of the Lahontan Region’s “WMI Chapter” within the statewide Strategic Plan. These watershed workplans are updated at least annually.

Page 4.1-1. Change section on “Considerations for Water Reclamation Projects” to read:

“Considerations for Water Reclamation ~~Recycling~~ Projects

The Regional Board encourages the reuse of treated domestic wastewater, and desires to facilitate its reuse (See Section 4.4 of this Chapter). The need to develop and use ~~reclaimed~~ recycled water is one factor the Regional Board will evaluate when considering exemption requests to waste discharge prohibitions. Other considerations, including potential impacts of nutrients in recycled water on aquatic life uses, will also apply.”

(Revisions to the California Water Code have substituted the term “recycled water” for the formerly used term “reclaimed water” The last sentence is added for clarification.

Page 4.1-2. Add at end of second line.

“Area-specific prohibitions are grouped by watersheds, which are discussed in a north to south order”.

Pages 4.1-8 and 4.1-9. Add periods at ends of sentences in “Mono and Owens Hydrologic Units” Section.

Pages 4.1-9 and 4.1-10. Change Prohibition # 1 to read:

- “1. The discharge of waste to surface water in the Mojave Hydrologic Unit that is tributary to the West Fork Mojave River or Deep Creek, above elevation 3,200 feet (approximate elevation of Mojave Forks Dam) is prohibited. (Figure 4.1-23)

An exemption to this prohibition may be granted by the Regional Board whenever the Regional Board finds (based on evidence presented by the proposed discharger) that the discharge of waste ~~is not directly to surface waters, and~~ will not, individually or collectively, directly or indirectly, adversely affect water quality or beneficial uses.”

The 1975 South Lahontan Basin Plan included a prohibition against discharges of wastes of sewage bearing origin to surface waters of the Mojave River watershed upstream of the Lower Narrows dam in Victorville. There were no exemption criteria for this prohibition. During review of the draft Lahontan Basin Plan in 1993, the Victor Valley Wastewater Reclamation Authority (VWVRA) and the Mojave Water Agency (MWA) commented that the lack of exemption criteria seriously undermined the Victorville area’s ability to pursue the use of reclaimed wastewater. At the August 1993 public hearing on the draft Basin Plan, Regional Board members expressed support for the use of reclaimed water in the Victorville area, and directed staff to prepare exemption language.

VWVRA originally requested exemption language which would allow discharges to surface waters. Because of concern about the need for additional technical justification to show that such discharges would not harm beneficial uses of water, the 1995 Basin Plans’ exemption criteria do not allow exemptions for surface discharges. VWVRA agreed to study the impacts of a potential surface discharge and to provide evidence which might justify revisions of the exemption criteria at a later date.

The 1975 South Lahontan Basin Plan contained several waste discharge prohibitions applicable to the Mojave River watershed. In preparing the current Basin Plan, staff not only added exemption language for the prohibition affecting the Victorville area, but also inadvertently changed the 1975 exemption criteria for another prohibition against

dischargers of waste in the West Fork Mojave River and Deep Creek watersheds above the elevation of 3200 feet. The latter change had the effect of preventing the Board from issuing exemptions for surface discharges in this prohibition area, although such exemptions were allowed in the 1975 plan. Changes in this prohibition's exemption criteria were not requested in the 1993 VVWRA and MWA comments on the Basin Plan, and were not included in the Board's direction to staff at the August 1993 public hearing. The staff report for the draft Basin Plan revisions did not specifically evaluate the implications of changing the 1975 criteria for the Board's ability to permit reclaimed water use above 3200 feet. The currently proposed change would correct staff's error and effectively restore the exemption language for Prohibition #1 to its 1975 status. Consultation with legal staff of the State Water Resources Control Board and of the California Office of Administrative Law indicates that this change is justified under the "nunc pro tunc" doctrine and does not require environmental analysis."

Page 4.1-19- Substitute revised flow chart (Figure 4.1-8A) for existing chart.

The proposed amendments include a correction to Figure 4.1-8A titled 'Septic System Prohibition Flowchart to Determine Permitting Authority in the Truckee & Little Truckee River Hydrologic Units above the Confluence of the Truckee River and the Boca Outlet'. This is a minor correction to the existing Basin Plan.

Page 4.2-2. Add the following new paragraph above the "Proposition 65 Program" heading:

The Water Code (Section 13272.1) requires Regional Boards to publish and distribute quarterly reports on methyl tert butyl ether (MTBE) discharges to public water system operators within their jurisdictions. The reports must list MTBE discharges which occurred within the quarter and locations where MTBE was detected in groundwater within the region.

Pages 4.2-2 and 4.2-3 Revise subsection entitled "Proposition 65 List" as follows"

"The Proposition requires the State Governor to publish a list of chemicals known to cause cancer or reproductive toxicity, and revise and republish the list with any new information at least once per year. The first list was published in February 1989. More than ~~300~~ 400 chemicals and substances have been listed as carcinogens, and more than 200 for reproductive toxicity, as of ~~1992~~ May 1998. ..."

Page 4.2-3, under "Requirements for Site Investigation and Remediation", change first sentence as follows:

""The State Board adopted State Board Resolution No. 92-49 "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304 in June of 1992, and amended it in April, 1994 and October, 1996."

Page 4.3-6, second full paragraph. Change last sentence as follows:

“(The USEPA is proposing to develop and issue ~~general~~ a general stormwater permit for inactive mines on federal lands.)”

Page 4.4-1, second paragraph. Change first sentence to read:

‘Waste discharge prohibitions concerning sewage are listed in Section 4.1, “Waste Discharge Prohibitions”.’

Page 4.4-1, second paragraph under “Effluent Limitations”. Change last sentences to read as follows:

~~“Water Quality Limited Segments are identified through the State’s Water Quality Assessment Process (Chapter 6). In 1992, the State Board established priorities for developing TMDLS for the State Water Quality Limited Segments. The Regional Board has identified Water quality Limited Segments and will continue to do so. Additions to and deletions from the Lahontan Region’s list of Water Quality Limited Segments are considered every two years as part of the water quality assessment process (Chapter 7). Priorities for developing TMDLS for listed waters are also updated through this process. Section 4.13 of this Basin Plan includes approved TMDLS for specific surface waters.”~~

(The language above corrects an incorrect chapter reference, and provides a more accurate description of current Section 303(d) compliance procedures.)

Page 4.4-4 Add new sentence at end of second paragraph on boat wastes:

“See Section 4.11, “Recreation” for a discussion of the impacts of boat fuel discharges.”

Pages 4.4-7 to 4.4-9. Revise “Wastewater Reclamation” section as follows:

“Wastewater Reclamation Recycling

Parts of the Lahontan Region, like California in general, are experiencing an increasing water shortage. In the Southern portions of the Lahontan Region, for instance, the Antelope Valley and the Mojave Ground Water Basins are overdrafted due to increased pumping to meet the water demands of the growing Victor Valley, Lancaster and Palmdale areas. In light of this increasing statewide water shortage, development of water supply alternatives is important. For many uses, ~~reclaimed~~ recycled wastewater is a viable alternative water supply and sales of ~~reclaimed~~ recycled water can sometimes be used to offset the costs of treating wastewater. (The terms “recycled water” and “water recycling” are now used in the California Water Code in place of the formerly used terms “reclaimed water” and “water reclamation”). Residential greywater use decreases residential water demand and is discussed below in “Individual Wastewater Treatment Systems”.

~~Reclaimed~~ Recycled water has a wide variety of applications. The applications include agricultural irrigation, landscape irrigation (including highway landscape, parks and golf courses), impoundments for landscape, recreational and/or wildlife uses, wetland and wildlife enhancement, industrial processes (e.g., cooling water, process water, wash water, dust control), construction activities and groundwater recharge.

Wastewater ~~reclamation~~ recycling is an important component of wastewater management in the Lahontan Region. ~~A~~ As of 1994, a total of 17 wastewater ~~reclamation~~ recycling plants in the Lahontan Region accounted for 7% of all ~~reclaimed~~ recycled water reuse in the State. In fact, the Los Angeles County Sanitation District No. 14-Lancaster water ~~reclamation~~ recycling plant and the South Tahoe Public Utility District sewage treatment plant were among the top twelve major ~~reclaimed~~ recycled water producers in the State. Other ~~reclaimed~~ recycled water producers in the Region include the Susanville Consolidated Sanitary District, the Crestline Sanitation District, the Lake Arrowhead Community Services District, and the Ridgecrest /China Lake Naval Weapons Center wastewater treatment facility.

~~Reclaimed~~ Recycled water in the Lahontan Region is used for golf course, alfalfa, tree and other agricultural irrigation, as well as for soil compaction and dust control. Some ~~reclaimed~~ recycled water from the Lancaster Water Reclamation Plant is used for wildlife habitat enhancement at Piute Pond and to supply a recreational lake at Apollo Lake County Park. Other uses of ~~reclaimed~~ recycled water, such as for snow making in areas of Lake Arrowhead and Mammoth Lakes, have been proposed to the Regional Board. (See Waste Discharge Prohibitions Section for Mojave River HU for exemption language concerning reclaimed wastewater.)

The State Board adopted the “Policy With Respect to Water Reclamation in California” and the related “Action Plan for Water Reclamation in California “ in 1977 (State Water Board Resolution No. 77-1). This policy specifies ~~reclamation~~ actions to be implemented by the State and Regional Boards, as well as other agencies, in relation to reclaimed water use. The policy directs the State and Regional Boards to encourage ~~reclamation~~ and reuse of water, and to promote water reclamation projects which preserve, restore, or enhance instream beneficial uses. The policy also states that the State and Regional Boards recognize the need to protect public health and the environment in the implementation of reclamation projects.

The Porter- Cologne Act requires Regional Boards to consider the need to develop and use ~~reclaimed~~ recycled water when establishing water quality objectives. The Porter-Cologne Act also requires the State Department of Health Services (DHS) to establish statewide ~~reclamation~~ recycling criteria for each type of ~~reclaimed~~ recycled water use to protect public health. The Act requires any person proposing to discharge ~~reclaimed~~ recycled water to file appropriate information related to the discharge with the Regional Board. The Act also states that, after consulting with and receiving recommendations from DHS, and after any necessary public hearing, the Regional Board shall, if necessary

to protect the public health, safety, or welfare, adopt water reclamation requirements for the reclaimed water discharge.

The California Water Code provides encouragement for the use of ~~reclaimed~~ recycled water in relation to water rights decisions, as follows (Section 1010 [a][1]):

“The cessation of, or reduction in, the use of water under any existing right regardless of the basis of right, as the result of the use of ~~reclaimed~~ recycled water, ... is deemed equivalent to and for purposes of maintaining any right shall be construed to constitute, a reasonable beneficial use of water to the extent and in the amount that the ~~reclaimed~~ recycled ... water is being used not exceeding, however, the amount of such reduction “.

The Porter-Cologne Act (Sections 13523.1 and 13263(h)) allows Regional Boards to issue master reclamation or recycling permits for suppliers and or distributors of reclaimed or recycled water. Master reclamation permits must include waste discharge requirements and requirements for the following: compliance with statewide reclamation criteria, establishment and enforcement by the permittee of rules or regulations for reclaimed water users, quarterly reporting on reclaimed water use, and periodic compliance inspections of water users by the permittee.

The California Water Code (Sections 13550 through 13556) declares that use of potable water for certain purposes (e.g., irrigation of parks, golf courses, cemeteries, and residential landscaping, and toilet and urinal flushing in nonresidential structures) is a waste and unreasonable use of water if nonpotable water is available, under specific conditions. Section 13555.2 declares the Legislature’s intent to encourage the design and construction of distribution systems for nonpotable water separate from those for potable water. Section 13556 allows water suppliers to acquire, store, provide, sell and deliver ~~reclaimed~~ recycled water for any beneficial use if the water use is in accordance with state ~~reclamation~~ water recycling criteria and with Chapter 7 of the Water Code.

While the Regional Board supports the concept of ~~reclamation~~ water recycling, it must also consider potential impacts from ~~reclamation~~ recycling on ground and surface water quality. When reviewing proposed ~~reclamation~~ water recycling projects, the Regional Board carefully considers potential public health impacts from pathogens or conservative organic compounds, as well as the potential for the proposed project to create pollution or nuisance conditions. The Board also considers potential impacts on the quality and beneficial uses of any receiving surface or ground waters including the potential for eutrophication of surface waters due to nutrient loading from recycled water. ~~Wastewater reclamation is~~ Discharges of recycled water are prohibited in areas of the Lahontan Region where waste discharge prohibitions are in place, unless exemption criteria, where applicable, can be met. The Water Code (Sections 13529.2 and 13529.4) includes provisions for reporting cleanup, and administrative civil liabilities for unauthorized discharges of recycled water which has been treated at secondary or tertiary levels.

Accumulation of minerals is a common potential impact to receiving waters from ~~reclaimed~~ recycled water uses. Accumulation of minerals must be minimized to provide for protection of beneficial uses. A variety of techniques can be used. Where well controlled irrigation is practiced, nitrate problems can be controlled. Vegetative uptake will utilize soluble nitrates which would otherwise move into ground water under a percolation operation. Demineralization techniques for source control of total dissolved solids may be necessary in some areas where ground waters have been or may be degraded. Presence or excessive salinity, boron, or sodium in the effluent could be a basis for rejection of proposals to irrigate cropland with effluent, however, the Porter-Cologne Act allows issuance of ~~reclamation~~ water recycling requirements to a project which **only** violates salinity objectives.

Reclamation Water Recycling Control Measures for Indian Creek Watershed

Recycled water from the South Tahoe Public Utility District (STPUD) is exported from the Lake Tahoe Basin to Alpine County, where it is used for irrigation. In order to protect the beneficial uses of the Indian Creek watershed, the Regional Board must regulate the use of ~~reclaimed~~ recycled water for irrigation in coordination with regulation of other discharges such as septic systems, irrigation return flows from lands not irrigated with effluent, and stormwater from pasture lands and manure storage areas. (High nutrient and coliform bacteria levels measured in Indian Creek and the lower West Fork Carson River indicate that better management of animal wastes is desirable in these watersheds.) The amount of nutrients leaching into ground waters from areas irrigated with domestic wastewater effluent should be minimized. ...“

The changes above reflect recent legislation which changed most Water Code references to “reclaimed water” to “recycled water”, and established reporting requirements for unauthorized discharges of recycled water. References to “reclaimed” water were not changed to “recycled” in all sections of the water code, and the summary language above reflects the terms used in specific cited sections. Language on the Board’s concern about the threat of eutrophication from nutrients in recycled water is added as a clarification. The Water Code includes legislative findings that recycled water is “safe”; however, this safety is in terms of pathogens and human health. Recycled water which has been treated to safe bacterial levels may still pose a threat to aquatic life uses because of its high nutrient content. The first sentence in the “Reclamation Control Measures for Indian Creek Watershed” is added for clarification. During the 1995 Basin Plan revisions this section was separated from a discussion of the STPUD, and an explanation of the acronym is needed here.

Page 4.4-10, left column, fourth paragraph. Change last line to read:

“...42), and Hesperia, ~~and the City of Adelanto.~~”

(In 1998, the City of Adelanto constructed its own wastewater treatment facility, and separated from the Victor Valley Wastewater Reclamation Authority; see the addition to page 4.4-12 below.)

Page 4.4-10, left column, last line. Change to read:

“...was 4.8 million gallons per day (mgd). VVWRA has subsequently expanded....”

Page 4.4-11, first paragraph under “South Tahoe Public Utility District” heading. Change the next to last sentence to read:

“The Regional Board maintains ~~reclamation~~ water recycling waste discharge requirements on ranchers who use the effluent for irrigation.”

Page 4.4-12. Add the following new subsection after the third paragraph, above the subsection on Los Angeles County Sanitation District Number 14-- Lancaster:

“City of Adelanto Public Utility Authority

The City of Adelanto Public Utility Authority wastewater treatment facility receives domestic and commercial sewage from the community of Adelanto, including an industrial park and several prison complexes. The facility is designed to produce an advanced secondary level of wastewater treatment. Before September 15, 1998 the City conveyed its wastewater to the Victor Valley Wastewater Reclamation Authority’s regional wastewater treatment facility for treatment and disposal.

The design capacity of the facility is 1.5 mgd. Currently the City treats and disposes an average of approximately 0.7 mgd of wastewater. Treatment processes are preliminary treatment, two lined extended aeration lagoons, two secondary clarifiers, filtration, and disinfection. Sludge from the secondary clarifiers is thickened, centrifuged and routinely trucked offsite for disposal. Treated effluent is discharged to a percolation pond for disposal. The City plans to construct a regional septage receiving station at the facility. Future City plans include possible use of recycled wastewater from the wastewater treatment facility.

The Adelanto wastewater treatment facility is regulated by waste discharge requirements for the discharge of treated wastewater to percolation ponds. A requirement to implement an industrial pretreatment program is included.”

Page 4.4-12, second paragraph under “Los Angeles County Sanitation District No. 20- Palmdale” heading. Change first sentence to read:

“The effluent from the District’s 30th and 40th Street East oxidation pond sites ~~are~~ is conveyed by two gravity pipelines and a force main... .”

Page 4.6-1. Second paragraph. Change fourth sentence to read:

Ground water overdraft can affect beneficial uses of surface waters such as wetlands and springs, particularly in dry areas, by reducing natural flows into these areas.”

Page 4.6-1, second paragraph under “Beneficial Uses”. Correct title of resolution to read:

“Incorporation of “Sources of Drinking Water Policy” into the Water Quality Control Plans (Basin Plans)”, where... “

The correct title of the resolution references the two North and South Lahontan Basin Plans which were in effect when it was adopted. The resolution also includes double quotes in the title.

Page 4.6-10, paragraph #2 under “Ground Water Control Actions by Other State Agencies”, change beginning of last sentence as follows:

“Adjudications to protect the quality of ground water ~~is~~ are further discussed in Section 2100...”.

Page 4.6-11. Add new Section 3 above “Ground Water Control Actions by Local Agencies” heading, as follows:

"3. Section 13169 of the California Water Code authorizes the State Board to develop and implement a ground water protection program, as provided under the Safe Drinking Water Act, Section 300 and following of Title 42 of the United States Code, and any federal act that amends or supplements the Safe Drinking Water Act. This authority allows the State Board to apply for and accept State ground water protection grants from the federal government, and to take any additional action as may be necessary or appropriate to assure that the State's ground water protection program complies with any federal regulations issued pursuant to the Safe Drinking Water Act or any federal act that amends or supplements the Safe Drinking Water Act."

Page 4.9-3, second paragraph. Change to read:

“The Regional Board considers SNA and other Natural Diversity Data Base Information when updating beneficial uses designations for the Region’s waters and when updating the Region’s ~~Water Quality Assessment Data Base~~ Geospatial Waterbody System (GeoWBS) database (see Chapter 7).”

Page 4.9-3, third paragraph. Change last sentence to read:

“The Regional Board considers SAS information when updating beneficial uses designations for the Region’s waters and when updating the Region’s ~~Water Quality Assessment Data Base~~ Geospatial Waterbody System (GeoWBS) database (see Chapter 7). “

Page 4.9-3, fourth paragraph. Change last sentence to read:

“The Regional Board considers USFS RNA and SIA designations when updating beneficial use designations for the Region’s waters, and when updating the Region’s ~~Water Quality Assessment Data Base~~ Geospatial Waterbody System (GeoWBS) database (see ~~Ch. Chapter~~ 7).”

Page 4.9-3, fifth paragraph. Change last sentence to read:

“The Regional Board considers BLM Areas of Critical Environmental Concern designations when updating beneficial use designations for the Regions’ waters, and when updating the Region’s ~~Water Quality Assessment Data Base~~ Geospatial Waterbody System (GeoWBS) database (see Chapter 7).”

Page 4.9-18, right column, third paragraph, seventh line: correct the spelling of “phosphorous” to “phosphorus”.

Page 4.9-20. Revise the “Control Measures for Grazing” section as follows:

“Control Measures for Grazing

Grazing activities occur on both public and private lands in the Lahontan Region. Regulation of grazing on federal lands differs from that on private lands.

Federal lands. Grazing activities on federal lands are regulated by the responsible land management agency, such as the U.S. Bureau of Land Management (BLM) or the U.S. Forest Service (USFS). Through MOUs and MAAs, the Regional Board recognizes the water quality authority of the USFS and BLM in range management activities on federal lands . Both the USFS and BLM require allotment management plans (AMPs) to be prepared for a specific area and for an individual permittee. The Regional Board relies on the water quality expertise of the USFS or BLM to include appropriate water quality measures in the AMPs. Most AMPs include specific Best Management Practices to protect water quality and existing and potential beneficial uses.

Non-federal (private) lands. The Range Management Advisory Committee (RMAC) is a statutory committee which advises the California Board of Forestry on rangeland resources. The RMAC has identified water quality protection as a major rangeland issue and ~~has it~~ assumed a lead role in developing a ~~Water Quality Management Plan~~ water quality management plan for private rangelands in California. The California Rangeland Water Quality Management Plan (Rangeland Plan) was accepted by the State Water Resources Control Board (SWRCB) in 1995. The Rangeland Plan summarizes authorities and mandates for water quality and watershed protection, and specifies a framework for the voluntary and cooperative development of ranch management strategies for water quality protection under Tier I of the SWRCB’s Nonpoint Source Management Plan. (See the Introduction to Chapter 4 of this Basin Plan for an explanation of the Nonpoint Source Plan.) The Rangeland Plan provides that where water quality or the beneficial uses of water are impaired or threatened, ranch owners

shall develop an individual Rangeland Water Quality Management Plan (RWQMP) or participate in one of the several other recognized individual or coordinated rangeland planning processes. The Rangeland Plan also describes sources of technical and financial assistance available to ranch owners. Regional Board staff is actively participating in the Plan's development. Sections proposed for inclusion in the Plan are status of water quality and soil stability on state rangelands, authority, mandates and programs for water quality and watershed protection, local water quality planning guidelines, sources of assistance, development of management measures (BMPs), state agency water quality responsibilities and monitoring guidelines. Upon its completion, the Rangeland Water Quality Management Plan will be submitted to the State Board for consideration of adoption.

On private lands whose owners request assistance, the U.S. ~~Soil~~ Natural Resources Conservation Service (NRCS SCS), in cooperation with the local Resource Conservation Districts (RCDs), can provide technical and financial assistance for range and water quality improvement projects. An MOU is in place between the NRCS SCS and the State Board for planning and technical assistance related to water quality actions and activities undertaken to resolve nonpoint source problems on private lands.

On both public and private lands, the Regional Board encourages grazing strategies that maintain adequate vegetative cover to reduce erosion and sedimentation. The Regional Board promotes dispersal of livestock away from surface waters as an effective means of reducing nutrient and pathogen loading. The Regional Board encourages use of BMPs to improve water quality, protect beneficial uses, protect streamzone and lakeshore areas, and improve range and watershed conditions. ~~including~~ These BMPs include:

- Implementing rest-rotation grazing strategies
- Changing the season of use (on/off dates)
- Limiting the number of animals
- Increasing the use of range riders to improve animal distribution and use of forage
- Fencing to exclude grazing in sensitive areas
- Developing non-lakeshore and non-stream zone watering sites
- Constructing physical watershed improvement projects such as check dams
- Restoring riparian habitat

These same BMPs may result in improved range and increased forage production, resulting in increased economic benefit to the rancher and land owner. The Regional Board also encourages land owners to develop appropriate site-specific BMPs using

technical guidance documents from the ~~Soil Conservation Service~~ Natural Resources Conservation Service and the U.S. Environmental Protection Agency (USEPA 1993).

Regional Board Control Actions for Livestock Grazing

In addition to relying on the grazing management expertise of agencies such as the USFS, BLM or RMAC, the Regional Board can directly regulate grazing activities where voluntary implementation of BMPs is deemed by the Regional Board or its Executive Officer to be inadequate to ensure protection of ~~to protect~~ water quality and beneficial uses of water. Actions available to the Regional Board include:

1. Require that a Report of Waste Discharge be filed, that an AMP be prepared, or that an Individual Rangeland Water Quality Management Plan (RWQMP) or Coordinated Resource Management Plan (CRMP) be adopted within one year of documentation of erosion problems, destruction or major impairment of vegetation, or significant addition of nutrients, pathogens and/or sediments to surface waters or ground waters resulting from grazing or grazing management activities. Such problems indicate impairment of beneficial uses or violation or threatened violation of water quality objectives.
2. Require that all AMPs, RWQMPs and CRMPs contain BMPs necessary to correct existing water quality problems or to protect water quality so as to meet all applicable beneficial uses and water quality objectives contained in Chapters 2 and 3 of this Basin Plan. Corrective measures would have to be implemented within one year of submittal of the AMP, RWQMP or CRMP, except where staged BMPs are appropriate. Implementation of a staged BMP must commence within one year of submittal of the AMP, RWQMP or CRMP.
3. Require that each AMP, RWQMP or CRMP include specific objectives, actions and monitoring and evaluation procedures. The discussion of actions must establish the seasons of use, number of livestock permitted, grazing system(s) to be used, a schedule for rehabilitation of ranges in unsatisfactory condition, a schedule for initiating range improvements, and a schedule for maintenance of improvements. The schedule for initiating and maintaining range improvements must include priorities and planned completion dates. The discussion of monitoring and evaluation must propose a method and timetable for reporting of livestock forage conditions, watershed condition , and surface and ground water quality.
4. Require that all AMPs and CRMPs be circulated to interested parties, organizations and public agencies.
5. Consider adoption of waste discharge requirements if an adequate AMP, RWQMP, or CRMP is not prepared or if the Executive Officer and the landowner do not agree on BMPs proposed in an AMP, RWQMP or CRMP.

6. Decide that AMPs, RWQMPs and CRMPs prepared to address a documented watershed or water quality problem may be accepted by the Regional Board's Executive Officer in lieu of adoption of Waste Discharge Requirements.

7. Oversee monitoring of water quality variables and beneficial uses. Provide data interpretation.

Eagle Lake. The following control measures apply to the Eagle Drainage Hydrologic Area (See map in Section 4.1):

- A Report of Waste Discharge must be filed, or an AMP, RWQMP or CRMP prepared for specific areas within one year of documented proof of (1) erosion problems that threaten water quality or beneficial uses of water, (2) destruction, or major impairment of vegetation, or (3) significant addition of nutrients to surface waters or ground waters resulting from grazing or grazing management activities.
- All AMPs, RWQMPs or CRMPs must contain Best Management Practices (BMPs) necessary to correct existing water quality problems or to protect water quality. Corrective measures must be implemented within one year of submittal of the AMP plan, except where staged BMPs are deemed appropriate by the Regional Board or its Executive Officer. Implementation of a staged BMP must commence within one year of submittal of the AMP plan. The BMPs required because of documented watershed or water quality problems may be accepted by the Regional Board's Executive Officer in lieu of adoption of Waste Discharge Requirements.
- ~~The~~ AMPs and CRMPs must be circulated to interested parties, organizations, and public agencies. Each AMP, RWQMP and CRMP must address objectives, actions, and monitoring and ~~elevation~~ evaluation. The discussions of actions must establish the seasons of use, number of livestock permitted, grazing system to be used, a schedule for rehabilitation of ranges in unsatisfactory condition, a schedule for initiating range and watershed improvements, and a schedule for ~~improvement~~ maintenance of range and watershed improvements. The schedule for ~~initiating~~ installing and maintaining range and watershed improvements must include priorities and planned completion dates. The discussion of monitoring and ~~elevation~~ evaluation must propose a method and timetable for reporting of livestock forage conditions, watershed condition, and surface and ground water quality. Each AMP plan should describe all BMPs in enough detail to show that all water quality standards of this Basin Plan will be protected or restored.

Recommended Future Actions for Grazing Management

1. Provide information to private landowners, local RCDs and other agencies regarding grant monies available through the SWRCB and other sources for water quality planning and BMP implementation on rangelands. When requested, Regional Board staff should

participate in the voluntary implementation of BMPs on rangelands by providing information and technical assistance to facilitate grant applications.

- ~~1. Encourage BLM, USGS, RCD, and private landowners to develop watering sites for livestock away from lakeshores, stream zones, and riparian areas.~~
2. Encourage private landowners to request technical and financial assistance from SCS the Natural Resources Conservation Service and the University of California Cooperative Extension, in cooperation with the local Resource Conservation Districts, in the preparation of AMPs, RWQMPs and CRMPs, and the implementation or construction of grazing and water quality improvements.
- ~~3. Continue to coordinate with the RMAC in the development of a water quality management plan for private rangelands.~~

(The RMAC Rangeland Plan was in preparation, and had not yet been accepted by the State Board, when the 1995 Basin Plan was drafted. The proposed revisions above update references to this plan, and summarize its provisions. The revised language above also corrects typographical errors, recognizes the name change of the Soil Conservation Service to “Natural Resources Conservation Service”, and clarifies the Regional Board’s existing authority to regulate livestock grazing. The recommended control measure on encouragement of use of watering sites away from streams and riparian areas is deleted because it is already included as a BMP earlier in this section of the plan. The added recommendation to facilitate grant applications for water quality planning and BMP implementation reflects the Regional Board’s ongoing outreach activities under the Nonpoint Source program and Watershed Management Initiative.)

Page 4.9-26- last line of first partial paragraph. Change to read:

“The Regional Board’s ~~Water Quality Assessment~~ Geospatial Waterbody System (GeoWBS) database ~~can also notes provide information on-~~ the presence of sensitive species and communities in association with specific water bodies.”

Page 4.9-34 Change last sentence to read:

“Although the magnitude of the impacts ~~are~~ is still controversial, acid deposition has been linked to...”

Pages 4.10-3 and 4-10-4, “Pesticides” section, fourth paragraph. Revise as follows:

~~The State Water Resources Control Board (State Board) entered into a Memorandum of Understanding (MOU) with the DPR on December 23, 1991, to ensure that pesticides registered in California are used in a manner that protects water quality and the beneficial uses of water while recognizing the need for pest control. The MOU established principles of agreement regarding activities of both agencies, identified primary areas of~~

responsibility and authority between these agencies, and provided methods and mechanisms necessary to assure ongoing coordination of activities at both the State and local levels. The State Board and DPR mutually agreed, in part, to develop an implementation plan to (1) provide uniform guidance and direction to the Regional Water Quality Control Boards and to the CACs regarding the implementation of the MOU, (2) describe in detail procedures to implement specific sections of the MOU, and (3) make specific the respective roles of units within both agencies. On March 19, 1997, the State Water Resources Control Board and DPR entered into a Management Agency Agreement (MAA) and approved a “California Pesticide Management Plan for Water Quality” for implementation of the MAA. The MAA provides for cooperation and communication between the two agencies, and summarizes their respective roles and responsibilities. In the MAA, the State Board conditionally agrees to accept the MAA and plan as measures consistent with the State’s Nonpoint Source Management Plan. Both agencies commit to exchange information, and to work together in the development of plans, policies, and “reduced risk practices” for the protection of water quality from the impacts of pesticides. Implementation of “reduced risk practices” is to be initially on a voluntary basis, followed by regulatory action if necessary. The MAA includes a section on “Reservation of Authority” which provides that nothing in its text shall be construed as limiting the authority of the State and Regional Boards “in carrying out their legal responsibilities for management, regulation, coordination, and control of water quality.” The plan describes more specifically how DPR and the CAAs will work with the State and Regional Boards. It includes provisions for outreach programs, compliance with water quality standards, ground and surface water protection programs, self-regulatory and regulatory compliance, interagency communication, and conflict resolution. Appendices to the plan include a list of “reduced-risk practices” for minimizing the potential for offsite pesticide movement and transport of residues to surface or ground waters, and summaries of applicable state and federal regulations.

(The 1997 MAA and pesticide plan superseded the 1991 MOU between the State Board and DPR.)

Page 4.10-5, Second full paragraph, add new fourth sentence as follows:

“USEPA guidance on variances from water quality standards is summarized in Chapter 3 of this Basin Plan, under “General Direction Regarding Compliance With Objectives”.

Page 4.12-2. Add new sentence at end of first paragraph:

“The Regional Board acts as state lead agency at George Air Force Base.”

F. Proposed Changes to Chapter 5, Water Quality Standards and Control Measures for the Lake Tahoe Basin

Page 5-1, right column, eighteenth line. Add new sentences at end of paragraph:

“The State Board rescinded the separate *Lake Tahoe Basin Water Quality Plan* in January 1996. The regulatory language from this plan which was incorporated into the Lahontan Basin Plan remains in effect.”

Page 5-4, second full paragraph. Change third sentence to read:

“Local governments ~~are preparing~~ have prepared “community plans” in cooperation with TRPA, the business community, and other community interest groups, for most of the urban areas in the Tahoe Basin.”

Page 5-4, last paragraph. Add the U.S. Natural Resources Conservation Service to the list of implementing agencies after the U.S. Army Corps of Engineers.

Page 5-5, right column. Add a new sentence at the end of the first partial paragraph as follows:

“...planning process. The Truckee River watershed downstream of Lake Tahoe is also a priority watershed in the Regional Board’s Watershed Management Initiative (WMI).”

Page 5-5, right column, first paragraph under “Compliance Schedules”. Revise second sentence to read:

“The regional ~~Water Quality Assessment~~ Geospatial Waterbody System (GeoWBS) database (described in Chapter 7)...” .

Page 5-7. Add at end of last paragraph:

“Amendments requiring scientific justification must undergo scientific peer review.”

Page 5.1-9. Add the following objective after the "Suspended Materials" objective:

"Suspended Sediment: Suspended sediment concentrations in streams tributary to Lake Tahoe shall not exceed a 90th percentile value of 60 mg/L. (This objective is equivalent to the Tahoe Regional Planning Agency's regional "environmental threshold carrying capacity" standard for suspended sediment in tributaries.) *The Regional Board will consider revision of this objective in the future if it proves not to be protective of beneficial uses or if review of monitoring data indicates that other numbers would be more appropriate for some or all streams tributary to Lake Tahoe.*

(The underlined language above is an existing water quality objective, which was adopted in 1995 and placed in Chapter 3 of the Basin Plan, but was inadvertently left out of Chapter 5.)

Page 5.1-9, "Toxicity" objective. Update citation of Standard Methods for the Examination of Water and Wastewater by changing publication date from 1992 to 1998.

Page 5.1-12. Add the following narrative objective between objectives for “Chemical Constituents” and “Radioactivity”.

Page 5.1-15, left column, section on bacterial analyses. *Update the citation of Standard Methods for the Examination of Water and Wastewater by changing the publication date from 1992 to 1998.*

“Pesticides

For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides, and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi, or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code Section 12753).

Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediment. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.

Waters designated as MUN shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations specified in Table 64444-A of Section 64444 (Organic Chemicals) of Title 22 of the California Code of Regulations which is incorporated by reference into this plan. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.”

(The language above is identical to the current pesticide objective on Page 5.1-8 of the Basin Plan under the heading “Water Quality Objectives Which Apply to All Surface Waters”, and is being added to the ground water section for clarification. The Regional Board’s “no detectable pesticides” objective has always been applied to both surface and ground waters; the 1975 Basin Plans referred to “the summation of concentrations” of pesticides “in all waters of the basin”, although the objective was included with surface water objectives. There was no intent in the 1995 Basin Plan revisions to restrict the applicability of the objective to surface waters. It is appropriate to keep the references to bottom sediments and aquatic invertebrates because sediment “pore water” may be considered ground water, and because aquatic invertebrates are known to occur in the “hyporheic zone” of ground water beneath and surrounding streams.

Pages 5.1-14 and 5.1-15. Change subsection on “References to Means...” to read as follows:

“References to “Means”(e.g., annual mean, log mean, mean of monthly means), “Medians”, and “90th percentile values”:

“Mean” is the arithmetic mean of all data. **“Annual mean”** is the arithmetic mean of all data collected in a one year period.” **“Mean of monthly means”** is the arithmetic mean

of 30 day averages (arithmetic means). A logarithmic or “log mean” (used in determining compliance with bacteria objectives) is calculated by converting each data point into its log, then calculating the mean of these values, then taking the anti-log of this log-transformed average. The median is...”

(An explanation of “log mean” is being added as a result of questions from the public.)

Page 5.1-16 Add new section at end of current text and before “Key to Table 5.1-1”, as follows.

"Variances from Water Quality Objectives

The USEPA allows states to grant variances from water quality standards under the narrow circumstances summarized below (USEPA Water Quality Standards Handbook, Second Edition, 1993, Chapter 5). Such variances must be “built into” the standards themselves, and thus variances cannot be granted in California without Basin Plan amendments.

According to the USEPA, variances from standards “are both discharger and pollutant specific, are time-limited, and do not forego the currently designated use”. The USEPA recommends use of variances instead of removal of beneficial uses when the State believes that standards can ultimately be attained. Variances can be used with NPDES permits to ensure reasonable progress toward attainment of standards without violation of Clean Water Act Section 402(a)(1), which requires NPDES permits to meet applicable water quality standards.

The USEPA “has approved State-adopted variances in the past and will continue to do so if:

- each individual variance is included as part of the water quality standard;
- the State demonstrates that meeting the standard is unattainable based on one or more of the grounds outlined in 40 CFR 131.10 (g) for removing a designated use;
- the justification submitted by the state includes documentation that treatment more advanced than sections 303(c)(2) (A) and (B) has been carefully considered, and that alternative effluent control strategies have been evaluated;
- the more stringent State criterion is maintained and is binding upon all other dischargers on the stream or stream segment;
- the discharger who is given a variance for one particular constituent is required to meet the applicable criteria for other constituents;

- the variance is granted for a specific period of time and must be rejustified upon expiration but at least every 3 years (Note: the 3-year limit is derived from the triennial review requirements of section 303(c) of the Act.);
- the discharger either must meet the standard upon the expiration of this time period or must make a new demonstration of “unattainability”;
- reasonable progress is being made toward meeting the standards; and
- the variance was subjected to public notice, opportunity for comment, and public hearing. (See section 303(c)(1) and 40 CFR 131.20.) The public notice should contain a clear description of the impact of the variance upon achieving water quality standards in the affected stream segment.”

(The “section” references in the quoted language above are to the Clean Water Act. As used in this language, “criteria” and “criterion” are equivalent to “water quality objective[s]”). “

(The language above is proposed to be added for clarification, since the question of variances has arisen since adoption of the 1995 Basin Plan. The new language summarizes existing USEPA policy. The same language is being added to Chapter 3.)

Page 5.2-7. Correct typographical error in last sentence of third bullet, as follows:

"Exemptions for projects such as recreational facility parking ~~lost~~ lots..."

Page 5.4-5, fourth full paragraph. Add new sentence at end of ninth line as follows:

"... performance criteria for evaluation of the conditions. TRPA subsequently moved the IPES line in both Douglas and Washoe Counties, Nevada. No movement of the IPES line has yet been approved by TRPA in California."

Page 5.7-6, right column, fifth line. Correct to read

"Flooding from seiches_ (abnormally large waves)..."

Page 5.8-1, last paragraph. Change to read as follows:

"The California discharge prohibitions related to discharges of earthen materials, which were adopted in the 1975 Water quality Control Plan for the North Lahontan Basin and the 1980 Lake Tahoe Basin Water Quality Plan, also effectively limit new development in the Lake Tahoe Basin. These prohibitions ~~will~~ remain in effect as part of this Basin Plan ~~even if the State Board chooses to rescind the 1980 Lake Tahoe Plan.~~ Exemptions from the... ."

(The 1980 Lake Tahoe Basin Water Quality Plan was rescinded in 1996.)

Page 5.8-8, second paragraph under “Restrictions on Development”. Change first sentence as follows:

~~The Lake Tahoe Basin Water Quality Plan, as amended, defines d~~ Development not offset by remedial programs is defined as ”any new development for which mitigation work has not been performed or for which water quality mitigation fees have not been paid as required by the TRPA Code of Ordinances, Chapter 82.”

(The 1980 Lake Tahoe Basin Water Quality Plan was rescinded in 1996.)

Page 5.13-3 Change header from “Timber Harvest Activities” to “Forest Management Activities”.

(The title of Section 5-13 was changed to “Forest Management Activities” in the 1995 Basin Plan amendments, but the corresponding change in the header was not made.)

G. Proposed Changes to Chapter 6, “Plans and Policies”

(The following changes to Chapter 6 are proposed to add informational summaries of new plans, policies and interagency agreements, or to add clarifying references to existing plans, policies or agreements.)

Page 6-1. Add new items to the "State Board Plans" section as follows:

4. California Pesticide Management Plan for Water Quality

This plan implements a Management Agency Agreement (MAA) between the State Board and the California Department of Pesticide Regulation. The Plan and MAA were approved by both agencies on March, 19, 1997. They provide for ongoing cooperation and communication among the State Board, DPR, Regional Boards, and County Agricultural Commissioners in developing and implementing plans, policies, and “reduced risk practices” to control potential water quality impacts of pesticides. A more detailed summary of the plan and MAA is included in Section 4.10.

5. Strategic Plan

After comprehensive formal strategic planning efforts involving State and Regional Board staff and external stakeholders, the State Board adopted a Strategic Plan in 1995 and updated it in 1997. The plan includes goals, objectives, and performance measures to guide ongoing decision-making and appropriate allocation of scarce resources. The strategic planning process is recognized as an ongoing and inherent function of management. The plan includes a Watershed Management Initiative (WMI) Chapter for each Regional Board. (See the discussion of the WMI in Chapter 4 of this Basin Plan.) WMI Chapters are updated annually; the Strategic Plan as a whole is considered to be a

five year plan. The Strategic Plan and WMI Chapters are non-regulatory workplans and budget documents.

6. California Rangeland Water Quality Management Plan

The California Rangeland Water Quality Management Plan (Rangeland Plan) was developed by the Rangeland Management Advisory Committee (RMAC), a statutory committee which advises the California Board of Forestry on rangeland resources. The Rangeland Plan was accepted by the State Board in 1995. It summarizes authorities and mandates for water quality and watershed protection, and specifies a framework for the voluntary and cooperative development of ranch management strategies for water quality protection under Tier I of the SWRCB's Nonpoint Source Management Plan. (See the Introduction to Chapter 4 of this Basin Plan for an explanation of the Nonpoint Source Plan.) The Rangeland Plan provides that where water quality or the beneficial uses of water are impaired or threatened, ranch owners shall develop an individual Rangeland Water Quality Management Plan (RWQMP) or participate in one of the several other recognized individual or coordinated rangeland planning processes. The Rangeland Plan also describes sources of technical and financial assistance available to ranch owners.

Page 6-3, Item 1, change the next to last sentence to read:

"Resolution ~~6-91-927~~ 6-91-038 delegates authority to the Executive Officer to approve closure plans for waste management units."

Page 6-3. Update heading of Item 7 as follows:

7. State Board Resolution No. 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304 (as amended on April 21, 1994 and October 2, 1996).

Page 6-3. Add new items 8 above "Regional Board Policies" section, as follows:

"8. State Board Resolution No. 96-030, Water Quality Enforcement Policy.

This policy directs that enforcement actions throughout the state shall be consistent, predictable, and fair. It provides direction on types of violations which shall be brought to the attention of Regional Board members, on escalation of enforcement procedures from less formal to more formal levels, on cooperation and coordination with other agencies and referrals of violations to the Attorney General, and on factors to be considered in setting amounts for Administrative Civil Liabilities (ACLs). The policy supports the concept of supplemental environmental projects (e.g., mitigation measures) in exchange for suspension of a portion of an ACL or other monetary assessment."

Page 6-4, Add new Item 7 to Section beginning on Page 6-3, entitled "Regional Board Policies", as follows:

"7. Regional Board Order 6-93-104 (NPDES NO. CA G916001), Waste Discharge Requirements for /General National Pollutant Discharge Elimination System Permit for Surface Water Disposal of Treated Ground Water.

This regionwide general permit sets forth conditions for disposal to surface water of ground water which has been treated to remove petroleum products and chlorinated hydrocarbons, as part of remediation activities for leaking underground and aboveground fuel tanks and other unauthorized discharges. Such ground water must have been treated to nondetectable contaminant concentrations. Board Order 6-93-104 is included in Appendix B of this Basin Plan."

Page 6-7. Add new section at end of current text, as follows:

"8. Military Facilities (Federal Facilities Site Remediation Agreements)

High priority hazardous waste sites scheduled for cleanup under the federal "Superfund" program are placed on the National Priority List (NPL). The Superfund program provides funding and guidelines for cleanup of NPL sites. In California, a significant proportion of the NPL sites are military installations. Federal facilities in California, including military installations, which are **not** on the NPL can sign into a state compliance agreement called a Federal Facilities Site Remediation Agreement (FFSRA). A FFSRA is a document which formalizes a working agreement between the federal facility and state agencies. It establishes a schedule for site investigations and any necessary cleanup, and it provides the enforcement mechanism in cases where commitments are not met. More information on water quality control measures for military installations can be found in Section 4.12 of the Basin Plan."

H. Proposed Changes to Chapter 7, "Monitoring and Assessment"

Page 7-1. Second paragraph, change third and fourth sentences to read:

Beginning in 1989, the State Water Resources Control Board (State Board) and the Regional Boards have supplemented the "305(b) Report" with a detailed ~~"Water Quality Assessment"~~ computer database. The assessment, which will be updated on an ongoing basis, will be used as part of the Watershed Management Initiative to provide the background for funding decisions and the Clean Water Strategy.

(The former Water Quality Assessment database software is no longer being used. Since the 1995 Basin Plan revisions, the concepts of the Clean Water Strategy have been incorporated into the more comprehensive Watershed Management Initiative process.)

Page 7-1, fourth paragraph, change last sentence to read:

"Readers who wish to obtain information on monitoring or assessment data for a particular water body, ~~or to obtain a copy of the current Water Quality Assessment,~~ should contact Regional Board staff."

(Current Regional Board assessment data are available as printouts from the Geospatial Waterbody System database. Because of the large size of the database, it is most convenient for Regional Board staff to provide information in the form of printouts for specific water bodies, as needed. The State Board produces biennial statewide "water quality assessment reports" pursuant to Section 305(b) of the Clean Water Act.)

Page 7-2, change paragraph immediately above "Compliance Monitoring" heading to read:

~~"Volunteer monitoring programs have been initiated elsewhere in California under the supervision of other Regional Boards. Such programs may involve data collection by school classes or citizens' groups who have been provided with training and equipment by Regional Board staff or other agencies such as the Department of Fish and Game. Quality assurance/quality control (QA/QC) programs must be implemented to ensure that data will be useful for Regional Board programs. An interagency program to encourage citizen monitoring is active in the Lake Tahoe Basin, and volunteer monitoring by stakeholders is expected to be an important part of the Watershed Management Initiative. The Lahontan Regional Board will consider proposals for volunteer monitoring programs on a case-by-case basis."~~

Page 7-3. Revise section on "Remedial Project Monitoring" as follows:

~~"Regional Board staff are also involved in monitoring to measure the impacts of state-funded remedial projects. The Regional Board is responsible for oversight of the Leviathan Mine Pollution Abatement Project in the Bryant Creek drainage in Alpine County (see Section 4.7 of this Basin Plan). This includes periodic sampling of an established surface and ground water station network for selected toxic metals and related parameters, monitoring of the success of specific remedial measures such as revegetation, and bioassessment of streams affected by the discharge. Biological monitoring may be added when the recovery of instream beneficial uses begins to be apparent."~~

Page 7.3. Add new section below "Remedial Project Monitoring" section, as follows:

"Monitoring for TMDLs"

Monitoring data are essential for the development of Total Maximum Daily Loads (TMDLs) for impaired water bodies, and for evaluation of the accuracy of TMDL models and the success of remedial measures which are implemented as a result of the adoption of TMDLs. The development and implementation of TMDLs may involve the use of historical monitoring data, and monitoring by Regional Board staff, Regional Board contractors, other agencies, and/or dischargers."

Pages 7-3 and 7-4. Update "Water Quality Assessment" section as follows:

"The State Board has been preparing "Section 305(b) Reports" since the mid-1970s. Most of these reports have been fairly general in nature, highlighting a few significant

problem areas and estimating total area or stream mileage of waters statewide which were classified as good”, “medium” or “poor” quality. In 1989, the State Board began a more detailed Water Quality Assessment (WQA) process to fulfill USEPA reporting requirements and to provide the basis for prioritizing funding under the State’s Clean Water Strategy. The concepts of the Clean Water Strategy have since been incorporated into the Watershed Management Initiative Process.

The WQA process involves ongoing update of information in a computer database, which is now linked to Geographic Information System (GIS) data from a number of other agencies. The database provides qualitative information on water quality problems and threats, including causes, sources, and severity, and degree of beneficial use support. The database also allows inclusion of other information, such as remedial projects in progress, and attached files of monitoring data. The information used in update of the database includes the types of monitoring data discussed earlier in this Chapter, records of past Regional Board enforcement actions, professional judgement of Regional Board staff and other State and federal agency scientists and engineers, and public comments. In addition to its use in Section 305 (b) reporting, the WQA database is used in update of the Clean Water Act Section 303(d) list of impaired water bodies. (See Section 4.13 of this Basin Plan.)

~~The WQA is a computer database. It includes a table which lists water bodies of each Region alphabetically by water body type (lakes, streams, ground water, etc.) Initially, Regional Boards were directed to include at least all water bodies mentioned by name in their Basin Plans in the WQA table. Additional water bodies are to be added in future updates of the WQA, with the eventual goal of including all waters of the Region. The 1991 WQA for the Lahontan Region included about 700 entries, but there are many more water bodies in the Region.~~

~~For each water body, the WQA table identifies the wetland, lake, or ground water basin area or the stream mileage classified as having “good”, “intermediate”, impaired, or “unknown” water quality. The table includes space for brief narrative problem descriptions. It identifies problem sources as point, nonpoint, or both. It also indicates whether the waterbody is included in one or more of the following federal “lists” (numbers refer to Sections of the federal Clean Water Act):~~

~~131.11 Segments which may be affected by toxic pollutants, or segments with concentrations of toxic pollutants that warrant concern.~~

~~303(d) List of Water Quality Limited Segments where objectives or goals of the Clean Water Act are not attainable with the Best Available Treatment/Best Control Technology (BAT/BCT).~~

~~304(M) So-called “mini-list” of waters not meeting State adopted numeric water quality objectives due to toxic point sources after implementation of BAT/BCT~~

~~304(S) So called “short list” of waters not achieving water quality standards due to point source discharges of toxic pollutants after implementation of BAT/BCT.~~

~~304(L) So called “long list” of waters not meeting the water quality goals of the Clean Water Act after implementation of BAT/BCT.~~

~~314—A list of lake priorities for restoration~~

~~319 A list of impaired surface water bodies from nonpoint source problems due to both toxic and nontoxic pollutants.~~

~~The information used by Regional Board staff in composing and revising the WQA table includes the types of monitoring data discussed above, records of past Regional Board enforcement actions, professional judgment of Regional Board and other State or federal agency scientists and engineers, and public comments.~~

~~The WQA database also includes the capability to print out a more detailed “Fact Sheet” for each water body in the table. Fact Sheets can include longer problem descriptions, information on threatened or impaired beneficial uses, and summaries of current and projected remedial actions by the State Board and/or the Regional Board. Due to time constraints, and in many cases, lack of information, detailed Fact Sheets have not been prepared for all water bodies in the Lahontan Region’s WQA table. Additional Fact sheets will be added during the ongoing WQA update process.~~

~~The WQAs adopted by the nine Regional Boards were combined into a statewide WQA which was formally adopted by the State Board. The State Board is using the system to print out statewide “reports”, statistical tables graphs and charts summarizing the total numbers or percentages of water bodies affected by different types of water quality problems. The State Board also uses information in the WQA to prioritize funding proposals affecting specific water bodies. A Clean Water Strategy ranking system characterizes water bodies according to their resource value and condition (degree of threat or impairment), and project proposals according to their feasibility.”~~

(The description of the WQA database and reports in the current Basin Plan is obsolete, since the State and Regional Boards have changed to the “GeoWBS” system, which has different features and prints out different types of reports. The underlined language above describes the current database.)

I. Proposed Changes to Bibliography

Revise the following reference:

American Public Health Association, American Water Works Association, and Water Environment Federation, 1992 1998. *Standard Methods for the Examination of Water and Wastewater*, 18th 20th edition. American Public Health Association.

Add the following references:

U.S. Environmental Protection Agency, 1998. *Bacterial Water Quality Standards for Recreational Waters (Freshwater and Marine Waters): Status Report*. EPA-823-R-98-003, Office of Water, May 1998.

J. Proposed changes to Basin Plan Appendices:

Appendix B. Add the following new policies and replace the following revised policies, in chronological order of adoption, and update the title page for this appendix as follows:

Under "State Board Policies" heading:

Policies and Procedures for Investigation and Cleanup and Abatement of Discharges
Under Water Code Section 13304 (Resolution 92-49, as amended on April 21, 1994 and October 2, 1996) [REPLACE]

Water Quality Enforcement Policy and Guidance Amendments (Resolution No. 97-085)
[ADD]

Under "Regional Board Policies" heading:

Waste Discharge Requirements for General National Pollutant Discharge Elimination
System Permit for Surface Water Disposal of Treated Ground Water Lahontan Region
(Board Order No. 6-93-104; NPDES No. CA G916001) [ADD]

II. DELEGATION OF AUTHORITY RELATED TO REGIONAL BOARD SEPTIC SYSTEM CRITERIA TO LOCAL GOVERNMENTS

The following language shows proposed changes in the text of pages 4.4-16 to 4.4-18 of the 1995 Lahontan Basin Plan. Additions are underlined.

Figure 4.1-8A (on page 4.1-19 of the 1995 Basin Plan) has been revised to correct typographical errors, and to illustrate the septic system permitting process for the Truckee River/Little Truckee River septic system prohibition area in relation to the proposed amendment language.

“Individual Wastewater Treatment Systems (Septic Systems)

The following principles and policies will be applied by the Regional Board in review of water quality factors relating to land developments and waste disposal from individual waste disposal systems:

1. The following criteria will be applied as the minimum to ensure continued adequate protection of water quality, protection of present and future beneficial uses, and prevention of pollution, contamination and nuisance conditions. The Regional Board will prohibit the discharge from individual disposal systems which do not conform to these criteria.
2. These criteria prescribe minimum conditions for waste disposal from individual on-site systems and do not preclude the establishment of more stringent criteria by local agencies or the Regional Board. The Regional Board does not intend to preempt the authority of local agencies and will support local agencies to the fullest extent possible, particularly in the implementation of more stringent regulations.
3. Detailed procedures to implement these criteria and to process exemptions to these criteria are included in “Regional Board Guidelines for Implementation of Criteria for Individual Waste Disposal Systems” (see Appendix C).
4. The criteria contained herein are applicable to the entire Lahontan Region and pertain to any and all proposed building that involves wastewater discharges to other than a community sewer system. The criteria apply to: (1) proposed building on lots within new subdivisions or parcels, **and** (2) proposed building on existing subdivided lots or parcels, **and** (3) proposed subdivisions. The criteria do not apply to: (1) existing individual waste disposal systems, or (2) projects which have final building permits prior to June 16, 1988, unless evidence exists which necessitates retrofit of septic systems to conform with current criteria. The “Regional Board Guidelines for Implementation of Criteria for Individual Waste Disposal Systems”

specifies separate exemption procedures for existing developments and for new developments. Existing development includes projects for which **final** development plans, such as a final tract map, were approved by local agencies **prior** to June 16, 1988. New development includes subdivisions or individual parcels which **do not** have final development plans approved by local agencies **prior** to June 16, 1988.

5. These criteria do not apply to projects within septic system prohibition areas where the criteria are more stringent (for prohibitions, see Section 4.1 of this Chapter); and these criteria will preempt less stringent criteria in septic system prohibition areas.
6. Where community sewer systems are available, the Board will encourage connection to the sewer system in lieu of use of individual disposal systems.

Criteria for Individual Waste Disposal Systems

1. Maximum Density

Individual waste disposal systems associated with new developments which have a gross density greater than two (2) single family equivalent dwelling units per acre will be required to have secondary-level treatment of wastewater. Equivalent dwelling units (EDUs) are defined as a unit of measure used for sizing a development based on the amount of waste generated from that development; the value used in implementation of these criteria is 250 gallons per day per EDU. For the purposes of these criteria, the discharge from a single family dwelling is equal to one EDU. Senior citizen dwelling units and second units as defined in Government Code Sections 65852.1 and 65852.2 will not be considered as additional dwelling units. In addition to residential developments, this secondary level treatment policy also applies to wastewater discharges from commercial, industrial, recreational and all other developments with wastewater discharge volumes exceeding two EDU per acre density (500/gal/day/acre based on 250 gal/day/EDU). Use of new septic systems is permitted in existing developments with lot sizes having a net area greater than or equal to 15,000 square feet. The net area is that contained within the boundaries as set forth in the legal lot description.

2. Minimum Distances

The Regional Board has established the minimum distances (see Table 4.4-1 entitled, "Minimum Distances For Siting Individual Waste Disposal Systems") necessary to provide protection to water quality and/or public health. Local hydrogeological conditions may necessitate greater separation of the sewage disposal system from a well or watercourse for protection of beneficial uses (e.g., drinking supply and water contact recreation).

3. Additional Minimum Criteria

- a. The percolation rate in the disposal area shall not be slower than 60 minutes per inch if the discharge is to a leachfield or 30 minutes per inch if discharge is to a seepage

pit. If percolation rates are faster than 5 minutes per inch, then the soil for a total thickness of five feet below the bottom of the leaching trench shall contain at least 15% of material passing the No. 200 U.S. Standard Sieve and less than one-fourth of the representative soil cross-section shall be occupied by stones larger than 6 inches in diameter. Where the percolation rates are faster than 5 minutes per inch and the above requirement is not met, the minimum distance to ground water between the bottom of the disposal facilities and the anticipated high ground water shall be 40 feet. (The percolation rates shall be determined in accordance with procedures prescribed by the appropriate local public health agency).

- b. Clay, bedrock, other material impervious to the passage of water, or fractured bedrock, shall not be less than 5 feet below the bottom of the leaching trench or less than 10 feet below the bottom of the seepage pit. Impervious is defined for design purposes as a stratum with percolation times of greater than 120 minutes per inch.
- c. Depth to anticipated high ground water below the bottom of the leaching trench shall not be less than 5 feet. Depth to anticipated high ground water below the bottom of the seepage pit shall not be less than 10 feet. Greater depths are required if native material does not provide adequate filtration.
- d. Ground slope in the disposal area shall not be greater than 30 percent.
- e. Minimum criteria specified above must be met within the area of the proposed system and within the 100% expansion area for the proposed system.

Exemptions to the Criteria for Individual Waste Disposal Systems

In certain locations and under special circumstances, the Board or its Executive Officer may waive individual criteria. The Board or its Executive Officer may delegate to local agencies the authority to waive certain individual criteria as specified in No. 4 below.

- 1. Waiver of one or more individual criteria may occur if:
 - a. The area beneath the proposed septic system discharge has no significant amount of ground water having present or future beneficial uses; or
 - b. It can be proven that no pollution, nuisance or unreasonable degradation of either surface or ground waters will occur as a result of the proposed septic system density when considered individually or cumulatively with other discharges in the area; or
 - c. Construction of a community collection, treatment, and disposal system is imminent. Short-term, interim use of individual waste disposal systems may be allowed.

Implementation of Criteria for Individual Waste Disposal Systems

1. The Regional Board and the local agencies have adopted, through Memoranda of Understanding, criteria which are compatible with or more stringent than these criteria.
2. The Memoranda of Understanding include the procedures of the review and processing of applications for proposed discharge of wastewater from land developments which only discharge **domestic** waste, including single-family-unit residential, multi-unit residential, commercial, industrial and recreational developments. The Memoranda of Understanding include provisions for Regional Board review and processing of specific application (e.g., for industrial waste discharges).
3. For those local agencies which have adopted these or more stringent criteria, land developments which only discharge **domestic** waste, including single-family-unit residential, multi-unit residential, commercial, industrial and recreational developments, will be permitted entirely by the local agency. (However, the Regional Board reserves the authority to take action, if necessary, as described in item 6 below.)
4. Whenever the proposed development will not meet the minimum criteria, an adopted Memorandum of Understanding or equivalent document between the Board and the local agency may delegate exemption authority from the Board or its Executive Officer to the local agency to waive certain individual criteria. These criteria are **Minimum Distances** (No. 2 above) and **Additional Minimum Criteria** (Nos. 3a, b, c, d, e above). Whenever the proposed development will not meet the minimum criteria and no Memorandum of Understanding or other equivalent document exists between the Regional Board and the local agency, applications for all projects shall be transmitted to the Regional Board along with a complete report of waste discharge and a filing fee.
5. The Regional Board will review, on a project-by-project basis, proposals for commercial, industrial, recreational and all other types of developments which discharge **industrial** waste. If required, the report of waste discharge will contain information on estimated wastewater flows, types of wastes, and occupancy rates which will enable the Regional Board to evaluate the discharge in terms of EDUs.
6. In any case, the Regional Board will prohibit the discharge of wastes from land developments which will result in violation of water quality objectives, will impair present or future beneficial uses of water, or will cause pollution, nuisance, or contamination, or will unreasonably degrade quality of any waters of the State.

Implementation for Other Types of Waste Disposal from Land Developments

1. Severe impact on water quality can result from failure to implement adequate measures to control storm drainage and erosion. Land developers must provide plans for the control of such runoff from initial construction up to the complete build-out of the development. (See "Land Development" section.)
2. The disposal of solid waste can have adverse impacts on water quality and public health. Land developers must submit a plan which conforms to the regional or county master plan and contains adequate provisions for solid waste disposal for complete build-out of the development.
3. The disposal of septic tank sludge is an important part of any area-wide master plan for waste disposal. Land developers must submit a plan which conforms to the regional or county master plan and contains adequate provisions for septic tank sludge disposal for complete build-out of the development.
4. The responsibility for the timely submittal of information necessary for the Board to determine compliance with these guidelines rests with persons submitting proposals for development or discharge. The Porter-Cologne Water Quality Control Act provides that no person shall initiate discharges of waste prior to filing a report of waste discharge and prior to (1) issuance of waste discharge requirements, (2) the expiration of 120 days after submittal of an adequate report of waste discharge, or (3) the issuance of a waiver by the Regional Board."

III. DELEGATION OF AUTHORITY TO EXECUTIVE OFFICER TO GRANT EXEMPTIONS FROM WASTE DISCHARGE PROHIBITIONS AFFECTING THE LAKE TAHOE, TRUCKEE RIVER, AND LITTLE TRUCKEE RIVER WATERSHEDS FOR REMEDIAL PROJECTS

(Under Regional Board Order 6-93-108, authority is currently delegated to the Executive Officer to grant exemptions from waste discharge prohibitions related to 100-year flood plains in the Lake Tahoe, Truckee River, and Little Truckee River watersheds, and to Stream Environment Zones in the Lake Tahoe watershed. The proposed amendment language below would broaden the authority delegated to the Executive Officer and would place the delegation into the text of the Basin Plan rather in a resolution. After final approval of the Basin Plan amendments, Board Order 6-93-108 would be rescinded.)

A. Proposed Changes to Chapter 4, "Implementation".

Page 4.1-5. Delete last sentence and add the following language::

"The Regional Board has delegated authority to the Executive Officer to grant exceptions to Prohibition 4(c) above as it applies to the Little Truckee River HU and the Truckee River HU, for specific discharges where the proposed project meets the conditions required for a waiver of waste discharge requirements or for approval under general waste discharge requirements or a general NPDES permit, under the following circumstances::

(1) the project is within the following specific size limitations:

less than 1000 square feet of new impervious coverage, or
less than 2000 square feet of new ground disturbance, or
less than 100 cubic yards of fill or excavation; **or**

(2) the project's primary purpose is to reduce, control, or mitigate existing sources of erosion or water pollution; **and**

(3) the project meets the exemption criteria set forth in this section of the Basin Plan.

Except in emergency situations, the Executive Officer shall notify the Board and interested members of the public of his intent to issue an exemption subject to this Resolution at least ten (10) days before the exemption is issued. A notice of the exemption will also be published seven (7) days prior to issuance to allow for public comments. All comments received and staff's response to the comments will be forwarded to the Board with the proposed exemption. Any Regional Board member may direct that an exception not be granted by the Executive Officer and that it be scheduled for consideration by the Regional Board.

A Report of Waste Discharge shall be filed for any discharge for which approval is sought from the Executive Officer. Discharge from a project cannot commence until such time as the Regional Board Executive Officer has prepared and sent a letter to the applicant indicating that an exemption to the Basin Plan prohibitions is granted and that waste discharge requirements for the project are waived, or that General Waste Discharge Requirements are applicable. The Regional Board's action delegating authority to the Executive Officer to grant exemptions is conditional and the Executive Officer may recommend that certain exemption requests be considered by the Regional Board. Also see Appendix B for a copy of Resolution 6-90-22 describing conditions under which the Executive Officer can grant exceptions."

Page 4.1-6. Change last three sentences of Item 4.(c) as follows:

"(Exemptions to this prohibition may be granted by the Regional Board or its Executive Officer for certain projects. Exemption criteria and the Executive Officer's authority are ~~listed~~ described above under the discharge prohibitions for the Little Truckee River HU.) Also see Appendix B for a copy ~~copies~~ of Orders 6-90-22 and ~~6-93-08~~ describing conditions under which the Executive Officer can grant exceptions."

Page 4.1-7, "Lake Tahoe Hydrologic Unit" section. Change last sentence to read as follows, and add the complete new resolution number following adoption.

"Also see Appendix B, Orders 6-70-48, 6-71-17, 6-74-139, 6-90-22, and ~~6-93-08~~ which describe conditions for exemptions."

B. Proposed Changes to Chapter 5, "Water Quality Standards and Control Measures for the Lake Tahoe Basin":

Page 5.2-8. Add the following language at the end of the current text:

"The Regional Board has delegated authority to the Executive Officer to grant exceptions to Prohibition 10 above, for the Truckee River watershed, for specific discharges where the proposed project meets the conditions required for a waiver of waste discharge requirements or for approval under general waste discharge requirements or a general NPDES permit, under the following circumstances:

(1) the project is within the following specific size limitations:

less than 1000 square feet of new impervious coverage, or
less than 2000 square feet of new ground disturbance, or
less than 100 cubic yards of fill or excavation; **or**

(2) the project's primary purpose is to reduce, control, or mitigate existing sources of erosion or water pollution; **and**

(3) the project meets the exemption criteria set forth in this section of the Basin Plan.

Except in emergency situations, the Executive Officer shall notify the Board and interested members of the public of his intent to issue an exemption subject to this Resolution at least ten (10) days before the exemption is issued. A notice of the exemption will also be published seven (7) days prior to issuance to allow for public comments. All comments received and staff's response to the comments will be forwarded to the Board with the proposed exemption. Any Regional Board member may direct that an exemption not be granted by the Executive Officer and that it be scheduled for consideration by the Regional Board.

A Report of Waste Discharge shall be filed for any discharge for which approval is sought from the Executive Officer. Discharge from a project cannot commence until such time as the Regional Board Executive Officer has prepared and sent a letter to the applicant indicating that an exemption to the Basin Plan prohibitions is granted and that waste discharge requirements for the project are waived, or that General Waste Discharge Requirements are applicable. The Regional Board's action delegating authority to the Executive Officer to grant exemptions is conditional and the Executive Officer may recommend that certain exemption requests be considered by the Regional Board. Also

see Appendix B for a copy of Resolution 6-90-22 describing conditions under which the Executive Officer can grant exceptions."

Page 5.7-7. Add new language to paragraph following Item 4, as follows:

"Under limited circumstances, the Regional Board may delegate authority to the Executive Officer to grant exemptions from the floodplain prohibitions. "The Regional Board has delegated authority to the Executive Officer to grant exceptions to Prohibitions 8 and 9 for the Lake Tahoe HU, in Section 5.2 of the Basin Plan, for specific discharges where the proposed project meets the conditions required for a waiver of waste discharge requirements or for approval under general waste discharge requirements or a general NPDES permit, under the following circumstances:

(1) the project is within the following specific size limitations:

less than 1000 square feet of new impervious coverage, or
less than 2000 square feet of new ground disturbance, or
less than 100 cubic yards of fill or excavation; **or**

(2) the project's primary purpose is to reduce, control, or mitigate existing sources of erosion or water pollution; **and**

(3) the project meets the exemption criteria set forth in this section of the Basin Plan.

Except in emergency situations, the Executive Officer shall notify the Board and interested members of the public of his intent to issue an exemption subject to this Resolution at least ten (10) days before the exemption is issued. A notice of the exemption will also be published seven (7) days prior to issuance to allow for public comments. All comments received and staff's response to the comments will be forwarded to the Board with the proposed exemption. Any Regional Board member may direct that an exemption not be granted by the Executive Officer and that it be scheduled for consideration by the Regional Board.

A Report of Waste Discharge shall be filed for any discharge for which approval is sought from the Executive Officer. Discharge from a project cannot commence until such time as the Regional Board Executive Officer has prepared and sent a letter to the applicant indicating that an exemption to the Basin Plan prohibitions is granted and that waste discharge requirements for the project are waived, or that General Waste Discharge Requirements are applicable. The Regional Board's action delegating authority to the Executive Officer to grant exemptions is conditional and the Executive Officer may recommend that certain exemption requests be considered by the Regional Board. Also see Appendix B for a copy of Resolution 6-90-22 describing conditions under which the Executive Officer can grant exceptions."

Page 5.7-9. Add new language following first paragraph under last bullet, as follows:

"Under limited circumstances, the Regional Board may delegate authority to the Executive Officer to grant exemptions from the 100-year flood plain and Stream Environment Zone discharge prohibitions applicable to shorezone development. The Regional Board has delegated authority to the Executive Officer to grant exceptions to the Stream Environment Zone and 100-year flood plain prohibitions (Prohibitions 8, 9, 12, and 13 for the Lake Tahoe HU in Section 5.2 of the Basin Plan), for specific discharges where the proposed project meets the conditions required for a waiver of waste discharge requirements or for approval under general waste discharge requirements or a general NPDES permit, under the following circumstances:

(1) the project is within the following specific size limitations:

less than 1000 square feet of new impervious coverage, or
less than 2000 square feet of new ground disturbance, or
less than 100 cubic yards of fill or excavation; **or**

(2) the project's primary purpose is to reduce, control, or mitigate existing sources of erosion or water pollution; **and**

(3) the project meets the exemption criteria for 100-year flood plain or Stream Environment Zone projects set forth in Chapter 5 of the Basin Plan.

Except in emergency situations, the Executive Officer shall notify the Board and interested members of the public of his intent to issue an exemption subject to this Resolution at least ten (10) days before the exemption is issued. A notice of the exemption will also be published seven (7) days prior to issuance to allow for public comments. All comments received and staff's response to the comments will be forwarded to the Board with the proposed exemption. Any Regional Board member may direct that an exemption not be granted by the Executive Officer and that it be scheduled for consideration by the Regional Board.

A Report of Waste Discharge shall be filed for any discharge for which approval is sought from the Executive Officer. Discharge from a project cannot commence until such time as the Regional Board Executive Officer has prepared and sent a letter to the applicant indicating that an exemption to the Basin Plan prohibitions is granted and that waste discharge requirements for the project are waived, or that General Waste Discharge Requirements are applicable. The Regional Board's action delegating authority to the Executive Officer to grant exemptions is conditional and the Executive Officer may recommend that certain exemption requests be considered by the Regional Board. Also see Appendix B for a copy of Resolution 6-90-22 describing conditions under which the Executive Officer can grant exceptions."

Page 5.8-4, section titled "Exemption Criteria- General Considerations", first paragraph..
Change second sentence to read as follows:

"(Also see Appendix B, Resolutions 6-90-22 ~~and 6-93-08~~ for a descriptions of exemption considerations.)"

Page 5.8-8, add the following above the heading: "Restrictions on Development Not Offset by Implementation of Remedial Erosion Control Measures":

"The Regional Board has delegated authority to the Executive Officer to grant exceptions to the Stream Environment Zone prohibitions (Prohibitions 12 and 13 for the Lake Tahoe HU in Section 5.2 of the Basin Plan) for specific discharges where:

(1) the project is within the following specific size limitations:

less than 1000 square feet of new impervious coverage, or
less than 2000 square feet of new ground disturbance, or
less than 100 cubic yards of fill or excavation; **or**

(2) the project's primary purpose is to reduce, control, or mitigate existing sources of erosion or water pollution; **and**

(3) the project meets the exemption criteria set forth above in this section of the Basin Plan.

Except in emergency situations, the Executive Officer shall notify the Board and interested members of the public of his intent to issue an exemption subject to this Resolution at least ten (10) days before the exemption is issued. A notice of the exemption will also be published seven (7) days prior to issuance to allow for public comments. All comments received and staff's response to the comments will be forwarded to the Board with the proposed exemption. Any Regional Board member may direct that an exemption not be granted by the Executive Officer and that it be scheduled for consideration by the Regional Board.

A Report of Waste Discharge shall be filed for any discharge for which approval is sought from the Executive Officer. Discharge from a project cannot commence until such time as the Regional Board Executive Officer has prepared and sent a letter to the applicant indicating that an exemption to the Basin Plan prohibitions is granted and that waste discharge requirements for the project are waived, or that General Waste Discharge Requirements are applicable. The Regional Board's action delegating authority to the Executive Officer to grant exemptions is conditional and the Executive Officer may recommend that certain exemption requests be considered by the Regional Board. Also see Appendix B for a copy of Resolution 6-90-22 describing conditions under which the Executive Officer can grant exceptions."

C. Proposed Changes to Chapter 6, "Plans and Policies":

Page 6- 3 Change the second paragraph of Item 4, "Exemption Policies for Basin Plan Prohibitions", to read as follows:

"Exemption criteria for discharge prohibitions related to Stream Environment Zones and 100-year flood plains in the Lake Tahoe Basin, and for the 100-year floodplain prohibitions in the Truckee River and Little Truckee River watersheds, are set forth in Chapters 4 and 5. These criteria require specific findings described in Chapters 4 and 5, and in Regional Board Orders 6-90-22 and 6-93-08. Those chapters and Board Orders 6-90-22 delegate authority to the Executive Officer to make exemption findings for these prohibitions under certain circumstances. Board Order 82-4 is used in implementation of the Lake Tahoe Basin prohibitions against discharges from new development which is not offset by remedial projects. Copies of the Board orders are included in Appendix B.

D. Proposed Changes to Basin Plan Appendices:

Following final approval of the Basin Plan amendments and rescission of Board Order 6-93-108, remove this order from Appendix B.

IV. PROPOSED REVISIONS RELATED TO THE REGIONWIDE PROHIBITION AGAINST INDUSTRIAL WASTE DISCHARGES TO SURFACE WATERS

(The proposed revisions include a few language changes unrelated to the industrial waste discharge prohibition to improve clarity, such as the added definitions of municipal waste and agricultural activities. The rationale for the proposed changes to the industrial waste discharge prohibition language is provided in a separate staff report.)

Revise Section 4.1 Waste Discharge Prohibitions, beginning on page 4.1-1, as follows:

4.1 WASTE DISCHARGE PROHIBITIONS

Waste discharge prohibitions that apply to the entire Lahontan Region are discussed first in this section. Waste discharge prohibitions for that apply to parts of the Lahontan Region are listed below by hydrologic units (HUs) or hydrologic areas (HAs) from north to south. ~~Prohibitions that apply to the entire Region are listed first. Some of the watershed-specific prohibitions are more stringent than the regionwide prohibitions.~~

Regionwide Prohibitions

1. The discharge of waste¹⁽ⁱ⁾ which causes violation of any narrative water quality objective contained in this Plan, including the Nondegradation objective, is prohibited.

2. The discharge of waste which causes violation of any numeric water quality objective contained in this plan is prohibited.

3. Where any numeric or narrative water quality objective contained in this Plan is already being violated, the discharge of waste which causes further degradation or pollution is prohibited.

4. The discharge of untreated sewage, garbage, or other solid wastes, ~~or industrial wastes~~ into the surface waters of the Region is prohibited. (For the purpose of this prohibition, “untreated sewage” is that which exceeds secondary treatment standards of the Federal Water Pollution Control Act, which are incorporated in this plan ~~on page 4.4-3~~ in Section 4.4 under “Surface Water Disposal of Sewage Effluent.”

5. For municipal ⁽ⁱⁱ⁾ and industrial ⁽ⁱⁱⁱ⁾ discharges:

(a) The discharge of wastewater except to the designated disposal site (as designated in waste discharge requirements) is prohibited.

(b) The discharge, bypass, or diversion of raw or partially treated sewage, sludge, grease, or oils to surface waters is prohibited

(c) The discharge of industrial process wastes ^(iv) to surface waters designated for the Municipal and Domestic Supply (MUN) beneficial use is prohibited. The discharge of industrial process wastes to surface waters not designated for the MUN use may be permitted if such discharges comply with the General Discharge Limitations in Section 4.7 and if appropriate findings under state and federal antidegradation regulations can be made.

Prohibitions 5(b) and 5(c) do not apply to industrial stormwater. For control measures applicable to industrial stormwater, see Section 4.3 of this Basin Plan, entitled “Stormwater Runoff, Erosion, and Sedimentation.”

Prohibitions 5(b) and 5(c) do not apply to surface water disposal of treated ground water. For control measures applicable to surface water disposal of treated ground water, see Regional Board Order No. 6-93-104, adopted November 19, 1993 (Basin Plan Appendix B).

Note: [†]

Definitions:

(i) “Waste” is defined to include any waste or deleterious material including but not limited to, waste earthen materials (such as soil, silt, sand, clay, rock, or other organic or mineral material, and any other waste as defined in the California Water Code Section 13050 (d). [USE SECTION SYMBOL]

(ii) Municipal waste” is defined in Section 4.4

(iii) “Industry” is defined in Section 4.7

(iv) “Industrial process wastes are wastes produced by industrial activities that result from one or more actions, operations, or treatments which modify raw material(s) and that may (1) add to or create within the effluent, waste, or receiving water a constituent or constituents not present prior to processing, or (2) alter water temperature and/or the concentrations(s) of one or more naturally occurring constituents within the effluent, waste or receiving water. Certain non-stormwater discharges may occur at industrial facilities that are not considered to be industrial process wastes for the purposes of Prohibition 5(c). Examples include: fire hydrant flushing, atmospheric condensates from refrigeration and air conditioning systems, and landscape watering. The Regional Board may establish additional monitoring programs and reporting requirements for these and other non-stormwater discharges at industrial facilities.

Revise Section 4.4 Municipal and Domestic Wastewater: Treatment, Disposal and Reclamation, as follows:

Page 4.4-1. Add superscript in first sentence of section, as follows:

“Municipal and domestic wastewater¹ discharges can cause...”

Page 4.4-1 Add footnote after second paragraph of introductory language, above the subsection entitled “Effluent Limitations”, as follows:

¹**Note:** “Municipal and domestic wastewater” is defined as sewage or a mixture of predominantly sewage and other waste from districts, municipalities, communities, hospitals, schools, and publicly or privately owned wastewater systems.

Revise Section 4.7 Mining, Industry, and Energy Production, as follows:

Page 4.7-1. Add superscript in first sentence of section:

“The primary industries¹ in the Lahontan Region are mining and mineral processing.”

Page 4.7-1. Add footnote at end of introductory section, above heading “General Discharge Limitations”, as follows:

¹**Note:** For purposes of this Basin Plan, “industry” is defined as any servicing, producing, manufacturing or processing operation of whatever nature, including, but not limited to: mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, or water well pumping. (This definition is taken from California State Water Resources Control Board and California Regional Water Quality Control Board, 1989). The word “industry” may have a broader meaning in other contexts; for example, in the sense used by modern economists, one of

the largest “industries” in the Lahontan Region is tourism. However, the waste discharge prohibitions, effluent limitations, and control measures in this Basin Plan should be understood in the context of the more narrow definition above.

Revise Section 4.10 Agriculture as follows:

Page 4.10-1. Add a superscript to second sentence of first paragraph:

“Agricultural uses include ranching, dairying, aquaculture, and the production of irrigated crops¹” :

Page 4.10-1. Add a footnote to the end of the introductory section, above the heading “Irrigated Agriculture”:

“¹ **Note:** Other agricultural activities include, but are not limited to: operations associated with confined animal and concentrated animal feeding, confined animal feeding, confined animal holding, confined and concentrated aquatic animal production facilities, and the treatment and/or disposal of agricultural wastewater.”

Add the following reference (cited in the amendments above) to the Basin Plan bibliography:

California State Water Resources Control Board and California Regional Water Quality Control Board, 1989. *Micro Waste Discharger System User Manual [Waste Discharge System Data Dictionary]*, Data Elements Page 0040.0. May, 1989.

V. PROPOSED CHANGES IN BENEFICIAL USE DESIGNATIONS FOR THE SEARLES VALLEY GROUND WATER BASIN, SAN BERNARDINO COUNTY

The following changes should be made to Chapter 2 of the 1995 Basin Plan:

Table 2-2, page 2-47. Revise footnote at the bottom of the page to read:

"Note: The MUN designation does not apply to ground water under the Searles Lake bed, or to the groundwater surrounding Searles Lake within the boundaries shown in Figure 2-1. The PRO (Industrial Process Supply) use applies to the ground water under the Searles Lake bed.

Add new Figure 2-1 following 2-53.

(Note: the proposed "Group I" Basin Plan amendments above include corrections of typographical errors in Basin Plan Table 2-1 for beneficial uses of the surface waters of Searles Lake.)

Print the following text on the reverse of Figure 2-1:

"The area shown in Figure 2-1, within which the Municipal and Domestic Supply beneficial use does not apply to ground water, is as follows:

Beginning at the southwestern origination point of the area: southwest corner of Section 30 (T26S R43E, MDM) and continuing north along the Section 30 west boundary, along the Section 19 (T26S, R43E, MDM) west boundary, along the Section 18 (T26S, R43E, MDM) west boundary, along the Section 7 (T26S, R43E, MDM) west boundary, along the Section 6 (T26S, R43E, MDM) west boundary, along the Section 31 (T25S, R43E, MDM) west boundary, along the Section 30 (T25S, R43E, MDM) west boundary, along the Section 19 (T25S, R43E, MDW) west boundary, along the Section 18 (T25S, R43E, MDM) west boundary, along the Section 7 (T25S, R43E, MDM) west boundary, along the Section 7 (T25S, R43E, MDM) north boundary, along the Section 8 (T25S, R43E, MDM) north boundary, along the Section 4 (T25S, R43E, MDM) west boundary, along the west boundary of Section 32 (T24S, R43E, MDM) to the west-to-east half section line which is the northwestern corner of the area.

Beginning at Section 32 on the west to east half section line across Section 32 (T24S, R43E, MDM) until the boundary intersects the west boundary of Section 33, Section 32 on the west to east half-section line across Section 33 (T24S, R43E, MDM) until the boundary intersects the west boundary of Section 34, Section 34 on the west to east half-section line across Section 34 (T24S, R43E, MDM) until the boundary intersects the west boundary of Section 35, Section 35 on the west to east half section line until the line intersects the 1,800 foot contour line on the east side of Searles Lake which is the northeast corner of the area.

The east boundary of the area follows the 1,800 foot contour line for approximately 13 miles until the contour line intersects the T26S/T27S line at the southern section line in Section 32 (T26S, R44E, MDM), the boundary of the area follows the southern section line of Section 32 (T26S, R44E, MDM) until it intersects Section 31 (T26S, R44E, MDM), from there the boundary extends along the southern boundary of Section 31 (T26S, R44E, MDM), along the southern boundary of Section 36 (T26S, R43E, MDM), along the southern boundary of Section 35 (T26S, R43E, MDM), and along the southern boundary of Section 34 (T26S, R43E, MDM) to the north-south half-section line of this section, from this point the boundary extends along the north-south half section line to the southern boundary of Section 27 (T26S, R43E, MDM); from here the boundary extends west along the southern boundary of Section 27 (T26S, R43E, MDM) to the intersection of the southern boundaries of Sections 27 and 28 (T26S, R43E, MDM), along the southern boundary of Section 28 (T26S, R43E, MDM), along the southern boundary of Section 29 (T26S, R43E, MDM), and along the southern boundary of Section 30 (T26S, R43E, MDM), and the boundary of the area closes at the southwest corner of Section 30 (T26S, R43E, MDM)."

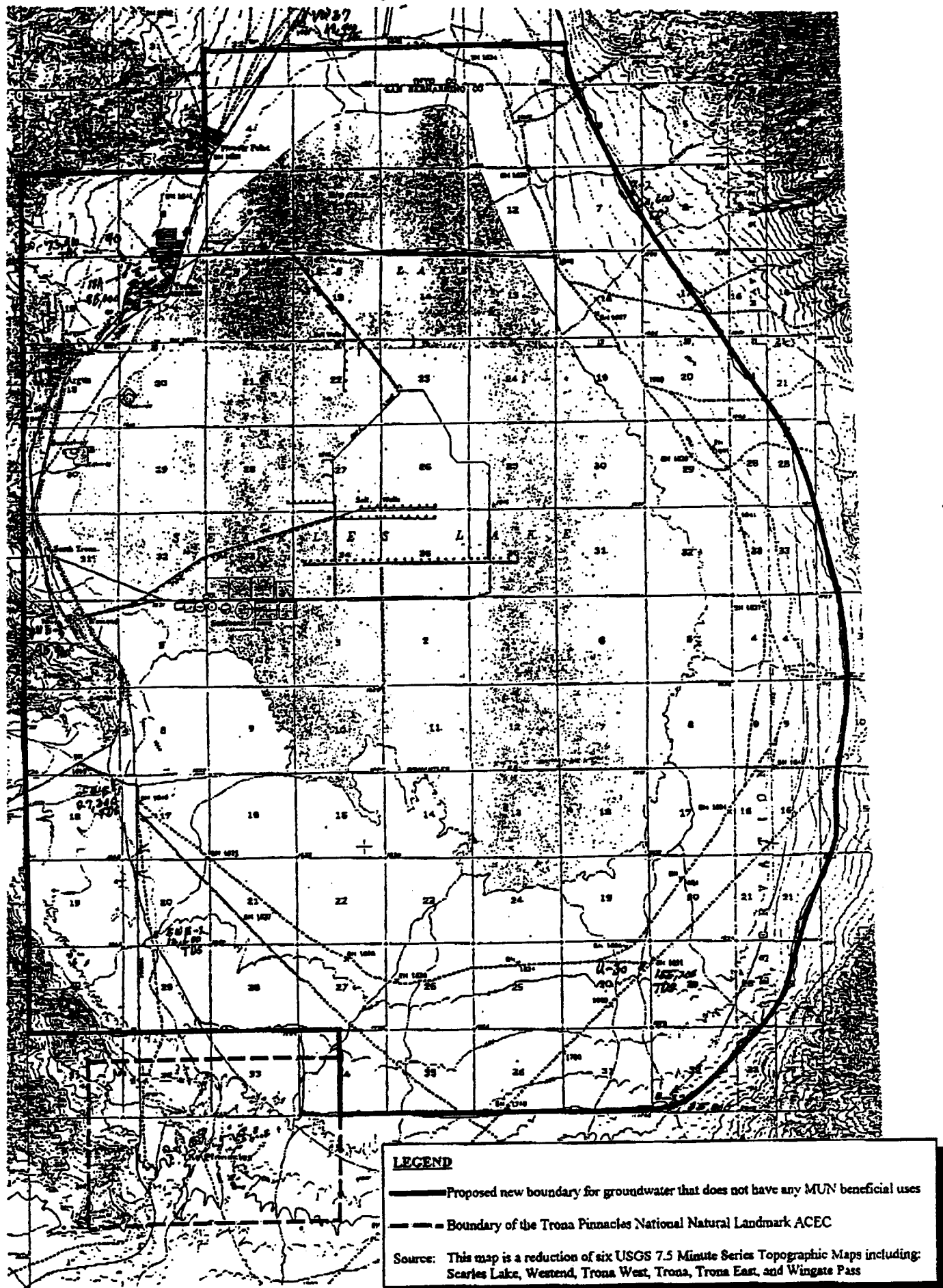


Figure 2-1. BOUNDARY OF AREA WITHIN SEARLES VALLEY GROUND WATER BASIN WHERE MUN USE DESIGNATION DOES NOT APPLY

STAFF REPORT/DRAFT ENVIRONMENTAL DOCUMENT
FOR
**PROPOSED AMENDMENTS TO THE WATER
QUALITY CONTROL PLAN FOR THE LAHONTAN
REGION (BASIN PLAN)**

STATE CLEARINGHOUSE NUMBER 98092052

California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

April 2000

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APPENDIX: Technical Justification for Beneficial Use
Changes for Ground Waters of the Searles Valley
Basin, San Bernardino and Inyo Counties

REFERENCES

Figure 1. North Lahontan Basin

Figure 2 South Lahontan Basin

Figure 3 Lake Tahoe/Truckee River watersheds

Figure 4 Location of Trona HA (#621)

Figure 5 Boundary of Area Within Searles Valley Ground Water
Basin Where MUN Use Designation Does Not Apply.

Table 1 Water Quality Criteria for Inorganic Constituents of Concern
for Lahontan Region Saline and Geothermal Waters

SUMMARY

This staff report/environmental document addresses proposed amendments to the 1995 *Water Quality Control Plan for the Lahontan Basin* (Basin Plan). The amendments include (1) miscellaneous editorial changes throughout the plan; (2) delegation of additional authority to local governments to implement certain portions of the Regional Board's septic system guidelines and criteria; (3) delegation of broader authority to the Executive Officer to grant exemptions from waste discharge prohibitions for water quality improvement projects in the Lake Tahoe, Truckee River, and Little Truckee River watersheds; (4) changes in the regionwide prohibition against discharges of industrial waste to allow discharges to waters not designated for the municipal and domestic supply (MUN) beneficial use, under limited circumstances; and (5) changes in two beneficial use designations for ground waters of the Searles Valley basin in San Bernardino County. The first three categories of amendments are editorial or procedural in nature, and are not expected to have significant environmental impacts. Proposed changes to the industrial waste discharge prohibition, and to beneficial uses of the Searles Valley ground water basin will not directly lead to physical changes in the environment. However, these changes could indirectly have significant environmental impacts by facilitating future approvals of industrial waste discharges. Such indirect impacts can and should be mitigated on a project-by-project basis in connection with future permits and enforcement actions. The proposed amendments will have beneficial socioeconomic impacts by: (1) streamlining the permitting process for septic systems regionwide; (2) streamlining the permitting process for water quality improvement projects in the Lake Tahoe, Truckee River and Little Truckee River watersheds; (3) facilitating the permitting process for certain types of industrial projects, such as salt mining operations on desert playa lakes; and (4) reducing cleanup costs in certain cases. No new pollution control requirements will be imposed as a result of the adoption of the proposed amendments.

INTRODUCTION

The California Regional Water Quality Control Board, Lahontan Region (RWQCB) is the State agency responsible for setting and enforcing water quality standards, under the federal Clean Water Act and the California Water Code, for about 20 percent of California east of the Sierra Nevada crest and in the northern Mojave Desert (Figures 1 and 2). Water quality standards and control measures are set forth in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). The Basin Plan was last revised in 1995. A variety of amendments, described below, are being proposed for adoption in July, 2000.

The RWQCB's planning process has been certified by the California Secretary for Resources under Section 21080.5 of the California Environmental Quality Act (CEQA) as "functionally equivalent" to the preparation of an Environmental Impact Report (EIR). This certification allows the Regional Board to prepare a relatively short "functional equivalent" document rather than a lengthy EIR for proposed Basin Plan amendments. The environmental document must

still contain all the elements of an EIR (or other type of CEQA document), and must be circulated for an equivalent public review period.

This document serves both as a staff report to provide background information for the proposed amendments, and as a “functional equivalent” CEQA document. The environmental analysis below concludes that, with the mitigation contained in the proposed amendment language and summarized in the project description, the proposed amendments will not have any significant adverse impacts on the environment. This staff report/CEQA document should be considered the equivalent of a Negative Declaration.

PROJECT DESCRIPTION

Specific proposed changes to the text of the 1995 Basin Plan are contained in a separate document. The following is a summary of the Basin Plan amendments covered in this staff report/CEQA document.

- I. **Minor clarifications and corrections throughout the existing plan, and addition of references to new legislation and new and revised plans, policies, and interagency agreements** adopted by the RWQCB and other agencies. These changes include both corrections of typographical errors and informational updates of plan language where appropriate. (For example, recent amendments to the California Water Code have changed the term "reclaimed water" to "recycled water".) Proposed changes also include restoration of 1975 exemption language for certain waste discharge prohibitions in the Mojave River watershed (see page 4.1-10) which was inadvertently changed during the 1993-95 Basin Plan update process. Example of added references to new laws, agreements, etc., are the 1997 pesticide management plan and management agency agreement jointly adopted by the State Water Resources Control Board (SWRCB) and the Department of Pesticide Regulation. Due to time limitations, these editorial changes will not constitute a complete informational update of the Basin Plan. Additional changes of this type will be proposed as part of a future plan update. *The changes in this group of amendments are editorial and are not expected to have any environmental or socioeconomic impacts.*
- II. **Delegation of additional authority to local governments to implement the Regional Board's septic system criteria and guidelines.** The RWQCB's current regionwide septic system *criteria* (in Section 4.4 of the Basin Plan) were adopted in 1988 for most of the Region and in 1989 for Kern County. They include regionwide standards for both the location and density of septic systems. The Basin Plan includes additional density criteria (Section 4.1, Figure 4.1-8, Figure 4.1-8a, and Appendix B of the Basin Plan) applicable to septic systems in the Truckee River prohibition area. The Board's septic system *guidelines* (Appendix C to the Basin Plan) provide direction for the implementation of the criteria, including which types of septic systems may be approved by local governments, and which require approvals by the RWQCB or its Executive Officer. (Note: In February 1998, pursuant to conditions in the Basin Plan, local governments were delegated authority by the RWQCB's Executive Officer to approve “alternative” septic systems.)

The amendments propose delegation of exemption authority from the RWQCB or its Executive Officer to appropriate local agencies to waive certain individual septic system criteria, provided that a Memorandum of Understanding (MOUs) or equivalent document is in place between the RWQCB and the local agency. Exemption authority may be delegated to the local agency to waive criteria for *Minimum Distances* as explained on page 4.4-17 and Table 4.4-1 of the Basin Plan, and for ***Additional Minimum Criteria*** as explained on pages 4.4-17 and 4.4-18 of the Basin Plan.

Through current MOUs, local agencies (such as county health departments) issue septic tank permits on behalf of the Regional Board. However, the Regional Board has retained authority to approve of alternative systems and exemptions to the basic septic system criteria. As the local agencies have successfully issued septic tank permits on behalf of the Regional Board since 1988, the Regional Board's Executive Officer utilized his authority pursuant to the section titled "*Permitting Authority*" on page 4.4-20 of the Basin Plan to delegate to local agencies the authority to approve alternative systems, effective in February 1998. The proposed amendments will broaden the authority of local agencies by adding the ability to waive criteria for ***Minimum Distances*** and for ***Additional Minimum Criteria***. The Regional Board will retain sole authority to exempt the ***Maximum Density*** criterion, and to review proposed discharges of industrial waste to septic systems. *This group of amendments involves procedural changes and is not expected to have any adverse environmental or socioeconomic impacts.*

- III. Expanded delegation of authority to the Executive Officer to find that certain types of remedial water quality projects in the Lake Tahoe and Truckee River/Little Truckee River watersheds meet existing exemption criteria for waste discharge prohibitions.** The current Basin Plan includes prohibitions against waste discharges resulting from disturbance of "Stream Environment Zones" and 100 year flood plains in the Lake Tahoe watershed, and from disturbance of 100 year floodplains in the Lake Tahoe, Truckee River, and Little Truckee River watersheds. Exemptions to these prohibitions are allowed for erosion control projects, watershed restoration projects, and other types of projects which benefit water quality (Sections 4.1, 5.2, 5.7 and 5.8 of the Basin Plan.). The RWQCB has delegated authority to the Executive Officer to find that certain types of projects meet the Board's exemption criteria. The proposed Basin Plan amendments would expand the scope of the delegation and would allow more water quality improvement projects to be approved at the staff level, rather than the Board level. *These amendments are procedural and are not expected to have any adverse environmental or socioeconomic impacts.*

- IV. Revisions to the current regionwide prohibition against discharges of industrial wastes to surface waters** (in Section 4.1 of the Basin Plan). Proposed changes would:
- a. Separate the industrial waste discharge prohibition language from language affecting municipal and agricultural discharges.

- b. Add definitions of industrial waste and industrial process waste.
- c. Clarify situations where the prohibition against industrial discharges to surface waters does not apply.
- d. Allow industrial discharges to surface waters which are not designated for the municipal and domestic supply (MUN) beneficial use, if they meet existing effluent limitations (Page 4.7-1 of the Basin Plan) and if required antidegradation findings can be made. The effluent limitations allow “essentially none” of a variety of toxic substances to be discharged.

The existing industrial waste prohibition language in Section 4.1 of the Basin Plan is the result of combination of language from the 1975 North and South Lahontan Basin plans. These plans included prohibitions on industrial waste discharges to surface waters within certain hydrologic units (watersheds), and the regionwide general effluent limitations for industrial discharges which are currently included in Section 4.7 of the 1995 Basin Plan. The effluent limitations provide that industrial discharges shall contain “essentially none” of a variety of toxic, hazardous, and deleterious substances. Regional Board planning staff interpreted these effluent limitations to be, in effect, prohibitions against industrial discharges, and therefore, for consistency, extended the watershed prohibition language regionwide in the 1995 Basin Plan.

The proposed Basin Plan amendments will eliminate the apparent conflict of some existing discharges with the prohibition, and will allow limited new or expanded discharges to surface waters which are not designated for the MUN use, under very stringent conditions. The amendments would affect only the regionwide Prohibition #4 on page 4.1-1 of the current Basin Plan. Other prohibitions against industrial waste discharges in certain watersheds would remain in effect. No industrial waste discharges to surface waters are permitted in the North Lahontan Basin, or in certain watersheds or portions of watersheds in the South Lahontan Basin (see Figures 1 and 2, and Section 4.1 of the Basin Plan.)

The industrial discharges which may be permitted under the changed language will be primarily those associated with mining and processing of salts from desert playa lakes which are not designated for the MUN use. Probably most such discharges will result from “beneficiation” processes, in which some naturally occurring salts are extracted from a liquid or solid mineral complex, and unused natural salts are returned to a dry lakebed (which is considered an ephemeral surface water body) or to a brine pool on the playa surface.

Antidegradation findings will be required in connection with permits for any new or expanded industrial discharges to ensure protection of other beneficial uses. Although the saline surface waters of the Lahontan Region may have naturally poor quality, state nondegradation objectives still apply to chemicals, such as those which may be present in industrial process wastes, which are not naturally present in these waters.

These amendments could facilitate new or expanded industrial discharges to surface waters in some parts of the region, which could have physical environmental effects on water quality and beneficial uses. However, such impacts can be mitigated to less than significant levels through the requirements, summarized in the project description above, for antidegradation findings by the Regional Board and compliance with regionwide effluent limitations. Other impacts of new or expanded industrial operations can and should be mitigated through the project-specific environmental documents and permitting processes of local governments or public land management agencies.

- V. Changes in beneficial use designations for ground waters of the Searles Valley Basin.** Proposed changes include addition of the Industrial Process Supply (PRO) beneficial use to the ground water beneath the Searles Lake bed, and removal of the currently designated potential Municipal and Domestic Supply (MUN) use from ground water adjacent to Searles Lake within the boundaries shown in Figure 5. (The amendments in Group I above would also correct two typographic errors involving the beneficial uses of surface waters of Searles Lake.) Addition of the PRO use for ground water would recognize the use of the brine beneath the lakebed in historic and existing mineral extraction operations. Removal of the potential MUN use is appropriate because the poor quality of the ground water in question (high levels of total dissolved solids and toxic trace elements such as arsenic and boron) meets the criteria in the state "Sources of Drinking Water Policy" for exclusion of ground water from the MUN use designation. (A copy of this policy, State Water Resources Control Board Resolution 68-16, is included in Appendix B of the Basin Plan.) All municipal water supplies for the affected area are currently imported from another watershed, and there are no foreseeable plans to treat the local ground water for municipal use. The Appendix to this staff report provides technical justification for the Group V amendments. *Designation of the PRO use recognizes an existing use and will not have any physical effects on the environment. The impacts of the proposed MUN use removal are not considered to be significant.*

APPROVALS REQUIRED

After their adoption by the Lahontan Regional Board, Basin Plan amendments must be approved by the California State Water Resources Control Board and the California Office of Administrative Law before taking effect. Changes in water quality standards do not take effect until they are approved by the U.S. Environmental Protection Agency (USEPA).

The proposed amendments will not directly lead to implementation of any specific projects which could physically change the environment. Therefore, the environmental document will not be used in permitting by any "responsible agencies" under CEQA. (The NOP was circulated to a mailing list of "trustee agencies" and other interested parties.)

Legislation adopted in 1997 requires the California Environmental Protection Agency, and its member agencies including the State and Regional Water Boards, before taking final action on new regulations, to submit information on the scientific basis for those regulations for external scientific peer review. If the agency decides not to follow recommendations of peer reviewers, it

must provide written justification of the reasons why as part of the administrative record. The proposed amendments do not require peer review. Most of them are editorial or procedural in nature and do not involve collection or evaluation of new scientific information. Amendments concerning beneficial use changes involve the application of scientific criteria which have already undergone public and peer review.

PURPOSE OF AND NEED FOR AMENDMENTS

The editorial amendments in Group I are needed to correct typographical errors and to make the Basin Plan's references to current laws, regulations, interagency agreements, etc. more accurate. The procedural amendments in Groups II and III are needed to streamline the RWQCB's permitting activities and to allow use of limited staff resources for other tasks. The Group III amendments will also facilitate the implementation of remedial watershed restoration projects in the Lake Tahoe and Truckee River watersheds. The changes in the industrial waste discharge prohibition language (Group IV) are needed to remove conflicts for existing discharges to saline surface waters (e.g., salt mining operations on ephemeral desert playa lakes) which were created when the Basin Plan was amended in 1995, and to facilitate permitting for similar new or expanded discharges which may be proposed in the future. The Group V amendments changing beneficial uses for ground waters of the Searles Valley Basin will more accurately reflect existing and attainable uses.

ENVIRONMENTAL AND SOCIOECONOMIC SETTING

The Lahontan Region (Figures 1 and 2) is defined by Section 13200(h) of the California Water Code as follows:

"Lahontan region, which comprises all basins east of the Santa Ana, Los Angeles and Central Valley regions from the California -Oregon boundary to the southerly boundary located in Los Angeles and San Bernardino Counties of the watersheds draining into Antelope Valley, Mojave River Basin, and Dry Lake Basin near Ivanpah."

The Lahontan Region has an area of over 33,000 square miles, about 20 percent of California, and includes all or part of thirteen counties (Modoc, Lassen, Plumas, Sierra, Nevada, El Dorado, Alpine, Mono, Inyo, Kern, Los Angeles, and San Bernardino). Much of the Region is in public ownership, including U.S. Forest Service, U.S. Bureau of Land Management, National Park Service, and military lands. The Lahontan Region includes a number of designated federal wilderness areas, Death Valley National Park, the East Mojave National Preserve, part of Yosemite National Park, and many State Parks. The Mono and Owens watersheds in Mono and Inyo Counties are an important source of water for the City of Los Angeles.

The Region has a population of about 800,000, which is expected to grow to more than 2 million by 2020 (Department of Water Resources, 1998). About three quarters of the Region's population is in Antelope Valley and the Victorville area, on the periphery of the Los Angeles metropolitan area. These areas are urbanizing rapidly and account for most of the population growth expected in the Lahontan Region. Tourism is the most important industry in much of the

Lahontan Region. Other economic activities include mining, military bases, and lumber production. There is some manufacturing in Antelope Valley and the Victorville area, and many residents of these areas work in the greater Los Angeles area.

Considering minor springs, streams, ponds and wetlands which are not listed by name in the Basin Plan, there are probably at least 2000 surface water bodies in the Lahontan Region. Surface waters include Lake Tahoe and Mono Lakes, the only two designated "Outstanding National Resource Waters" (ONRWs) in California. They also include many other ecologically and recreationally important waters which would meet U.S. Environmental Protection Agency (USEPA) criteria for designation as ONRWs, and other naturally high quality waters with quality better than needed to protect designated beneficial uses. Special water quality control measures for protection of Lake Tahoe, the Truckee River, and their tributaries are set forth in Chapters 4 and 5 of the Basin Plan. The Lahontan Region also includes waters with naturally poor water quality due to geothermal processes or evaporative concentration of salts in closed basins over geologic time.

Because of the large size and ecological diversity of the Lahontan Region, there are many unique species and subspecies of plants and animals within the region which may be listed as rare, endangered, or threatened by the state and /or federal governments. It is not feasible to include a complete list of these species within this environmental document. Sensitive plants and animals will need to be identified as part of the CEQA review process for any future industrial discharges to surface waters which are proposed as a result of these Basin Plan amendments.

Searles Lake Watershed. The Searles Lake watershed includes portions of Kern, San Bernardino, and Inyo Counties. The present day Searles Lake playa, and the ground water basin affected by the proposed amendments, are mostly within San Bernardino County. A small part of the ground water basin affected by the amendments is within Inyo County (Figure 5). The lake is an ephemeral remnant of a Pleistocene lake system, with a current surface elevation of about 1620 feet, and a current drainage area of about 751 square miles.

Alluvial and saline deposits below the dry lakebed may be more than 3000 feet deep near the center of Searles Valley. The mineralized brine within these deposits has total dissolved solids levels from 250,000 to 400,000 mg/L. IMC Chemical (IMCC) owns or leases more than half of the land on the lakebed, conducts solution mining for evaporite minerals occurring below the lake surface, and disposes waste brine to man-made percolation ponds on the lakebed. The remainder of the watershed is mostly under the ownership of the U.S. Bureau of Land Management, but includes portions of the China Lake Naval Weapons Center. Extensive facilities, including wells, large (square mile) percolation basins, pipelines, roads, power lines, and other facilities are located on the lakebed. Industrial, residential and commercial developed areas are on the west side of the lake, including chemical processing facilities owned by IMCC at Westend, Trona, and Argus. All potable domestic water for residential, commercial, and industrial development in Searles Valley is currently imported from the Indian Wells Valley, although the community of Trona was supplied by water piped from springs within the Searles Valley HA until 1979. According to the USBLM (no date), the mining/mineral processing operation provides direct employment to 850 people at the mine, and additional employment for

contractors and support services. IMCC is the largest employer in Trona (population 3,500) and the second largest employer for nearby Ridgecrest (population 30,000). The mining operation produces about 20 percent of the boron in the United States. The borax and soda ash from Searles Lake are used in glass manufacturing, fiberglass, detergents, water treatment, and agricultural fertilizers.

Surface water occasionally occurs on the Searles Lake bed from stormwater runoff and from rising of the brine aquifer to the surface during wet years. (The surface water of Searles Lake is not currently designated for the MUN beneficial use.) Little information is available on the aquatic biota of the ephemeral surface waters of Searles Lake. Upland vegetation surrounding the lake is saltbush scrub or creosote bush scrub. No jurisdictional wetlands have been delineated on or near the IMCC facilities.

Cortese List: Section 21092 of CEQA requires lead agencies to disclose whether the sites of development projects are on the list of hazardous substance sites which is required to be maintained under Government Code Section 65962.5 (the "Cortese List"). The proposed amendments do not directly involve any development projects, and there are no "project sites" which will be physically changed as a direct result of approval of the amendments. Regional Board staff consulted with San Bernardino County Health Department staff regarding Cortese List sites in the vicinity of Searles Lake. The San Bernardino County list (DTSC, 1998) includes one such site, the Trona Railway at 13068 Main Street, Trona CA 93562.

ENVIRONMENTAL AND SOCIOECONOMIC IMPACTS

Items I, II, and III in the Project Description above are editorial, informational, or procedural in nature and are not expected to have any adverse environmental impacts. They may have beneficial socioeconomic impacts by updating and clarifying the plan for dischargers and the general public, streamlining the permitting process for local governments and dischargers in some situations, and reducing Regional Board staff's workload related to septic system permits and Tahoe/Truckee project exemptions (e.g., preparation of agenda items for Board action). The Environmental Checklist below *does not* address the impacts of these items, and no mitigation is required.

The proposed Basin Plan language changes involved in Items IV and V, of the project description would not in themselves have direct physical impacts on the environment. They could have two levels of indirect impacts. First, proposed revisions to the regionwide industrial waste prohibition, in cases where the waters are not designated for the MUN use, would return current industrial discharges to surface waters to compliance with Basin Plan requirements. Second, the proposed amendments could also allow new or expanded discharges to surface waters which are not designated for the MUN use, under limited circumstances.

Although impacts of discharges on potential MUN uses would not be a concern for water bodies from which the MUN use has been removed, industrial discharges could have significant impacts on remaining designated beneficial uses of receiving waters and adjacent ground waters and wetlands, for aquatic life and wildlife (including rare, threatened, and endangered species),

recreation, and perhaps agriculture. In addition to the direct water quality impacts of new or expanded industrial discharges, "growth related" environmental impacts could occur due to construction and operation of new or expanded industrial facilities in rural or undeveloped areas, and due to population growth generated by the availability of new jobs.

Most surface and ground waters of the Lahontan Region are currently designated for a potential MUN use. The only waters currently excluded from the MUN use are the three Alkali Lakes in Modoc County, Honey Lake in Lassen County, Mono Lake, and the surface and ground waters of Searles Lake. Some other waters, such as geothermal springs, desert saline lakes and streams, and the ground waters associated with them, may meet criteria for removal of the MUN use designation under federal regulations and/or the state Sources of Drinking Water policy (see the appendix to this staff report). However, separate Basin Plan amendments, and separate environmental documents, will be required for removal of these uses before any industrial discharges to surface waters can be allowed as a result of the currently proposed amendments to the industrial waste discharge prohibition.

Environmental Checklist Discussion: The checklist below is based on Appendix I to the California State CEQA Guidelines (as revised through 1997) "Yes", "Maybe", and "No" column headings have been substituted for headings related to level of significance of impacts, because the impacts of the proposed amendments will be indirect. No specific proposals for new or expanded discharges to surface waters, or for construction or expansion of industrial facilities are before the Regional Board at this time. However, there is a reasonable possibility that a future project could be constructed that would include a discharge of industrial waste to surface waters. The level of significance of the impacts of future projects is speculative and cannot be accurately evaluated at this time. The Regional Board, as a responsible agency under CEQA, will review project-specific environmental documents, and will work with lead agencies to ensure that adequate mitigation for water quality-related impacts is provided, before it considers permits for any new or expanded industrial discharges to waters affected by these Basin Plan amendments.

The "Yes (indirect)" answer to Checklist Question IV(c), regarding "Water" impacts, reflects the probability that the amendments to the industrial waste discharge prohibition will facilitate new or expanded industrial discharges. New or expanded industrial discharges may also increase the risks of impacts on beneficial uses such as aquatic life and wildlife habitat, and recreation.

The "Maybe (indirect)" answers to all other Checklist questions reflect the potential impacts associated with the construction and operation of new or expanded industrial facilities which could be facilitated by the proposed amendments.

The Lahontan Regional Board is currently considering adoption of a separate set of Basin Plan amendments which would remove the MUN use designation from nine saline or geothermal water surface water bodies (California Regional Water Quality Control Board, Lahontan Region, 2000) Proposed amendments to the regionwide industrial waste discharge prohibition could cumulatively facilitate new industrial discharges to some of these waters. However, no discharges to these waters are proposed at this time, and none are reasonably foreseen.

The indirect impacts of future industrial discharges, and any future industrial leaks and spills, will occur cumulatively with those of existing discharges. The significance of cumulative impacts cannot be predicted at this time.

This functional equivalent environmental document should be considered the equivalent of a Negative Declaration because of the following provisions which are inherent in the amendments. Impacts of industrial waste discharges which are facilitated by amendment Item IV can be mitigated by the requirements (already in the Basin Plan) that industrial waste discharges meet effluent limitations which allow "essentially none" of a variety of toxic and hazardous substances, and that antidegradation findings must be made. (State and federal antidegradation regulations require that all beneficial uses must be protected even if lowering of water quality is allowed in return for socioeconomic benefits.) Dischargers to waters not designated for the MUN use would also be required to protect the existing or potential MUN uses of any nearby water bodies (e.g., good quality ground water in multi-aquifer systems, and freshwater wetlands associated with saline lakes.) Other beneficial uses, including aquatic life, wildlife, and recreational uses, would also be required to be protected.

Socioeconomic Impacts. Proposed amendments to the industrial waste discharge prohibition and to beneficial use designations will make existing Basin Plan language less restrictive for certain water bodies. These changes will provide economic benefits to current and potential dischargers to specific surface waters, and to nearby communities if new jobs are created.

Sections 21159 and 21159.4 of CEQA require Regional Boards, when adopting requirements for the installation of new pollution control equipment, or new performance standards for pollution control, to analyze reasonable means of compliance with the new regulations. No new pollution control requirements or performance standards will be imposed as a result of the adoption of these Basin Plan amendments. The requirements for compliance with regionwide industrial waste effluent limitations and antidegradation procedures associated with the revised industrial waste discharge prohibition are not new, but are within the Regional Board's existing authority. No further discussion of "reasonable means of compliance" is required in this staff report.

	YES	MAYBE	NO
I. LAND USE AND PLANNING- <i>Would the proposal:</i>			
a. Conflict with General Plan designation or zoning?		X (indirect)	
b. Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?		X (indirect)	
c. Be incompatible with existing land use in the vicinity?		X (indirect)	
d. Affect agricultural resources or operations (e.g., impact to soils or farmlands, or impacts from incompatible land uses?			X
e. Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?		X (indirect)	
II. POPULATION AND HOUSING- <i>Would the proposal:</i>			
a. Cumulatively exceed official regional or local population projections?		X (indirect)	
b. Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure?		X (indirect)	
c. Displace existing housing, especially affordable housing?			X
III. GEOLOGIC PROBLEMS: <i>Would the proposal result in or expose people to potential impacts involving:</i>			
a. Fault rupture?		X (indirect)	
b. Seismic ground shaking?		X (indirect)	
c. Seismic ground failure, including liquefaction?		X (indirect)	
d. Seiche, tsunami, or volcanic hazard?			X
e. Landslides or mudflows?		X (indirect)	
f. Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill?		X (indirect)	
g. Subsidence of land?		X (indirect)	
h. Expansive soils?		X (indirect)	
i. Unique geologic or physical features?		X (indirect)	
IV. WATER- <i>Would the proposal result in:</i>			
a. Change in absorption rates, drainage patterns, or the rate and amount of surface runoff?		X (indirect)	
b. Exposure of people or property to water related hazards such as flooding?			X
c. Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity?	X (indirect)		

	YES	MAYBE	NO
d. Changes in the amount of surface water in any water body?		X (indirect)	
e. Changes in currents, or the course or direction of water movements?		X (indirect)	
f. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?		X (indirect)	
g. Altered direction or rate of flow of groundwater?		X (indirect)	
h. Impacts to groundwater quality?		X (indirect)	
i. Substantial reduction in the amount of groundwater otherwise available for public water supplies?			X
V. AIR QUALITY- Would the proposal:			
a. Violate any air quality standard or contribute to an existing or protected air quality violation?		X (indirect)	
b. Expose sensitive receptors to pollutants?		X (indirect)	
c. Alter air movement, moisture, or temperature, or cause any change in climate?		X (indirect)	
d. Create objectionable odors?		X (indirect)	
VI. TRANSPORTATION/CIRCULATION: Would the proposal result in:			
a. Increased vehicle trips or traffic congestion?		X (indirect)	
b. Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X (indirect)	
c. Inadequate emergency access or access to nearby uses?		X (indirect)	
d. Insufficient parking capacity onsite or offsite?			X
e. Hazards or barriers for pedestrians or bicyclists?			X
f. Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?		X (indirect)	
g. Rail, waterborne, or air traffic impacts?		X (indirect)	
VII. BIOLOGICAL RESOURCES- Would the proposal result in impacts to:			
a. Endangered, threatened or rare species or their habitats (including but not limited to plants, fish, insects, animals, and birds)?		X (indirect)	
b. Locally designated species (e.g., heritage trees)?		X (indirect)	
c. Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)?		X (indirect)	
d. Wetland habitat (e.g., marsh, riparian and vernal pool)?		X (indirect)	

e. Wildlife dispersal or migration corridors?		X (indirect)	
	YES	MAYBE	NO
VIII. ENERGY AND MINERAL RESOURCES- Would the proposal:			
a. Conflict with adopted energy conservation plans?			X
b. Use nonrenewable resources in a wasteful and inefficient manner?			X
c. Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?			X
IX. HAZARDS- Would the proposal involve:			
a. A risk of accidental explosion or release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation)?		X (indirect)	
b. Possible interference with an emergency response plan or emergency evacuation plan?		X (indirect)	
c. The creation of any health hazard or potential health hazard?		X (indirect)	
d. Exposure of people to existing sources of potential health hazards?		X (indirect)	
e. Increased fire hazard in areas with flammable brush, grass, or trees?		X (indirect)	
X. NOISE- Would the proposal result in:			
a. Increases in existing noise levels?		X (indirect)	
b. Exposure of people to severe noise levels?		X (indirect)	
XI. PUBLIC SERVICES- Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:			
a. Fire protection?		X (indirect)	
b. Police protection?		X (indirect)	
c. Schools?		X (indirect)	
d. Maintenance of public facilities, including roads?		X (indirect)	
e. Other government services?		X (indirect))	
XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:			
a. Power or natural gas?		X (indirect)	
b. Communications systems?		X (indirect)	
c. Local or regional water treatment or distribution facilities?		X (indirect)	

d. Sewer or septic tanks?		X (indirect)	
e. Storm water drainage?		X (indirect)	
f. Solid waste disposal?		X (indirect)	
g. Local or regional water supplies?		X (indirect)	
	YES	MAYBE	NO
XIII. AESTHETICS- Would the proposal:			
a. Affect a scenic vista or scenic highway?		X (indirect)	
b. Have a demonstrable negative aesthetic effect?		X (indirect)	
c. Create light or glare?		X (indirect)	
XIV. CULTURAL RESOURCES- Would the proposal:			
a. Disturb paleontological resources?		X (indirect)	
b. Disturb archaeological resources?		X (indirect)	
c. Have the potential to cause a physical change which would affect unique ethnic cultural values?		X (indirect)	
d. Restrict existing religious or sacred uses within the potential impact area?		X (indirect)	
XV. RECREATION- Would the proposal:			
a. Increase the demand for neighborhood or regional parks or other recreational facilities?		X (indirect)	
b. Affect existing recreational opportunities?		X (indirect)	
XVI. MANDATORY FINDINGS OF SIGNIFICANCE:			
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X (indirect)	
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?		X (indirect)	
c. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)		X (indirect)	
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X (indirect)	

Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant impact on the environment, and the functional equivalent of a NEGATIVE DECLARATION will be prepared.

 x

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case. because the mitigation measures included in the project description have been added to the project. The functional equivalent of a MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project may have a significant impact on the environment, and the functional equivalent of an ENVIRONMENTAL IMPACT REPORT is required.

Date

Signature

LIST OF PREPARERS

The draft Basin Plan amendments and this staff report/CEQA document (including the Use Attainability Analysis appendices) were written or edited by Judith Unsicker, Environmental Specialist IV (Specialist) at the RWQCB's South Lake Tahoe (SLT) office. The following additional staff (in alphabetical order) were involved in collection of information, scoping and/or preparation of draft amendment language, preliminary impact analysis and/or review of the drafts:

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APPENDIX

TECHNICAL JUSTIFICATION FOR BENEFICIAL USE CHANGES FOR GROUND WATERS OF THE SEARLES VALLEY BASIN, SAN BERNARDINO AND INYO COUNTIES

April 2000

Acknowledgements: Technical information on the Searles Lake watershed and the Searles Valley ground water basin was provided by Tom Dodson of Tom Dodson & Associates, a consultant for IMCC (cited as Dodson, 1998 below). Elizabeth Lafferty, Associate Engineering Geologist at the Lahontan Regional Board's Victorville office, acted as liaison with IMCC during the development of these amendments, and drafted an earlier version of the Searles Valley portion of the staff report.

Introduction

This appendix summarizes the technical information used as the background for proposed amendments to the Water Quality Control Plan for the Lahontan Region (Basin Plan) which would remove the potential Municipal and Domestic Supply (MUN) beneficial use designation from ground waters in a portion of the Searles Valley basin and add the Industrial Process Supply (PRO) use to ground waters beneath the Searles Lake bed. Corrections of typographical errors related other beneficial use designations for the surface waters of Searles Lake are included in the editorial Basin Plan amendments. (In Table 2-1 of the existing Basin Plan, an "X" was mistakenly placed in the column for the Agricultural Supply (AGR) use rather than the column for the PRO use.)

IMCC considers the water chemistry data in the 1989 Errol M. Montgomery & Associates Report to be proprietary, and the quantitative chemical data cited below are from a summary by Dodson (1998). Regional Board staff have reviewed the original data and agree that the summary is accurate. Additional information on the environmental and socioeconomic setting of the Lahontan Region and the Searles Lake area is provided in the main staff report.

Environmental Setting

Searles Lake is located in northwestern San Bernardino County, but portions of its watershed are within Kern and Inyo Counties. The Trona HU (# 621.00, Figure 4) includes three hydrologic areas: the Searles Valley, Salt Wells, and Pilot Knob HAs. The proposed Basin Plan amendments concern only the ground waters of the Searles Valley basin (Department of Water Resources Basin No. 6-52) within the Searles Valley HA. Most of the Searles Lake HU is owned by the U.S. Bureau of Land Management; part of it is within a military reservation for the China Lake Naval Weapons Center.

Searles Valley is a north-trending closed geological basin about 30 miles long and 10 miles wide, bounded by the Argus and Slate Ranges, and the Garlock Fault. The surrounding mountains are pre-tertiary and tertiary granitic, metamorphic and volcanic rocks. The Searles Valley ground water basin is about 250 square miles in area; Searles Lake occupies about 40 square miles in the central-north portion of the basin (California Department of Water Resources [DWR], 1964). The present surface level of Searles Lake is about 1620 feet, and its watershed has an area of about 751 square miles. Searles Lake is a remnant of a chain of Pleistocene lakes which at times extended from the Owens River watershed to the Panamint Valley. Pleistocene Lake Searles was 375 feet deep and 16 miles long; there are wave-cut shorelines on surrounding mountains and fine gravel beaches near the Trona Pinnacles area. During the wettest part of the Pleistocene, Lake Searles and China Lake merged and submerged modern Salt Wells Canyon. Although the prehistoric lake spilled into the Panamint Valley, most of the time it was the terminus of the system and accumulated salts through evaporation. The current climate is hot and arid; the average annual precipitation at Trona between 1980 and 1968 was 4.24 inches. Nearly all precipitation is lost to evaporation; the annual evaporation rate is about 84 inches for fresh water and 41.5 inches for brine (DWR, 1964; Norris, 1995; Dodson, 1998).

Hammer (1986) cites research on a 260 m sediment core from Searles Lake which represented 500,000 to 1,000,000 years of deposition. It showed alternate deposition of many kinds of muds and salts over time. During the last 30,000 years the lake changed from saline to very saline.

Hydrogeology

Scientists have classified the playa lakes of Southern California deserts into two major groups, "dry" and "moist" playas, although there are playas showing characteristics intermediate between the two. Searles Lake is considered a moist playa. The characteristics of moist playas are largely under control of ground water discharge, directly through playa sediments and from adjacent springs. The underlying soils are coarse grained and permeable in comparison with dry playa soils. High water tables and permeable sediments facilitate capillary movement of ground water and salts. Subsequent evaporation leaves saline efflorescences on soft, irregular, "moist" or puffy crusts. The ephemeral lakes which form in moist playas have relatively low turbidity, organic matter usually less than 5 percent of total solids, anions dominated by chloride or sulfate, and salinities ranging from less than 20,000 to well over 100,000 umho/cm. Interstitial brines and/or soluble salts in sediments contribute major input to the TDS content of surface waters (Kubly and Cole, 1979; Norris 1995).

The principal hydrogeologic units in the Searles Lake area are Quaternary alluvial deposits, Quaternary saline deposits, and a bedrock complex with rocks ranging from Precambrian to Quaternary in age. Logs for wells and exploration boreholes in Searles Valley indicate that the alluvial deposits and the saline deposits interfinger in a transition zone along the periphery of the lake. The transition zone includes sand strata of the alluvial deposits and interfingering mud strata of the saline deposits. The combined thickness of the alluvial and saline deposits may be more than 3000 feet near the center of Searles Valley (Dodson, 1998).

The alluvial deposits unit includes loosely to moderately lithified clay, silt, sand, gravel and boulders. Near the basin margins and the zone of contact with the underlying bedrock complex, the alluvial deposits unit consists chiefly of sand gravel, and boulders. The thickness of the alluvial deposits unit in the north part of Searles Valley ranges from about 23 to about 1280 feet. Geophysical investigations a few miles north of the Garlock fault suggest that the alluvial deposits may be several thousand feet deep (Dodson, 1998).

Groundwater in the alluvial deposits aquifer is believed to occur chiefly under unconfined conditions, although confined aquifer conditions may occur locally along the south margin of the lake. Groundwater levels in this aquifer in 1988 ranged from 32 feet to 405 feet below ground surface and the average depth was about 170 feet. Pumping rates at wells from this aquifer were reported to range from about 6 to 1000 gallons per minute (gpm). Groundwater withdrawals from the alluvial deposits aquifer occur chiefly from four industrial well fields operated by IMCC. Composite pumping rates for 1988 from these fields ranged from about 140 to about 3600 gpm (Dodson, 1998).

The saline deposits aquifer is located in the center of Searles Valley and includes interbedded mud and evaporite strata. The maximum thickness of the saline deposits may be more than 2,275 feet. Logs for wells constructed near the periphery of Searles Lake show that a mud facies occurs

between the evaporite strata and the alluvial deposits. The saline deposits aquifer has been divided into several subunits. The brine occurs under unconfined conditions in the Upper and Lower Salt subunits, and under confined conditions in the Mixed Layer subunit. Fluid levels in the Upper and Lower Salt subunits depend partly on brine withdrawal and recharge operations by IMCC. The depth to fluid levels in the Upper and Lower Salt subunits generally ranges from near land surface to less than 10 feet below land surface. The Upper and Lower Salt subunits are recharged by infiltration of return flows from plant operations onto the lake surface and by recharge of concentrated brines into wells. The level of the Mixed Layer also depends on industrial brine withdrawal and recharge activities; recharge is via injection wells in the northwest part of Searles Lake (Dodson, 1998).

The bedrock complex aquifer includes moderately fractured granitic rocks in the Argus Range west of Searles Lake, and granitic, metamorphic, volcanic, and sedimentary rocks in the Slate Range east of the lake. Where fractures occur, the bedrock complex may yield small amounts of groundwater to wells and springs. (Dodson, 1998).

Chemistry

The evaporite minerals in the saline deposit consist chiefly of sodium and potassium carbonates, bicarbonates, sulfates, chlorides and borates and include halite, trona, hanksite, burkeite and borax. Ground water in Searles Valley is of the sodium chloride type and contains little or no calcium and magnesium. The average Total Dissolved Solids (TDS) concentration is about 350,000 mg/L in ground water from the alluvial deposits aquifer, about 420,000 in brine from the Upper and Lower Salt subunits, and about 350,000 mg/L in brine from the Mixed Layer subunit. Chemical data indicate that ground water with TDS concentrations greater than the Sources of Drinking Water Policy threshold (3000 mg/L) extends well beyond the boundary of the Searles dry lake bed (Dodson, 1998). The ground water area affected by the proposed Basin Plan amendments to remove the potential MUN use includes portions of the alluvial and saline deposits aquifers. The TDS concentration of the ground water beneath Trona, situated on an alluvial fan geomorphologically, is between 73,800 mg/l and 88,000 mg/l (Elizabeth Lafferty, personal communication).

The average concentration of boron is about 110 mg/L in groundwater from the alluvial deposits aquifer, about 3600 mg/L in brine from the Upper and Lower Salt subunits, and about 1400 mg/L in brine from the Mixed Layer subunit. The average concentration of arsenic is about 2.0 mg/L in ground water from the alluvial deposits, about 170 mg/L in brine from the Upper and Lower Salt subunits, and about 60 mg/L in brine from the Mixed Layer. Arsenic in Searles Valley is believed to be derived chiefly from geothermal sources and has concentrated during evaporative cycles over geologic time (Dodson, 1998).

The California Department of Water Resources (1964) classified the groundwater beneath Searles Lake as "inferior" quality for domestic or irrigation use on the basis of high concentrations of fluoride, boron, chloride, TDS, sulfate, and nitrate, and high electrical conductivity and percent sodium. The DWR stated that the lake brine had a TDS concentration of about 350,000 parts per million, about ten times that of sea water. Hammer (1986) also cites

a study which showed very high levels of phosphorus (about 900 mg/L phosphate) in Searles Lake brine.

Water from springs in the "bedrock" aquifer in the Argus Range, outside of the area proposed for removal of the MUN use, is of good quality and until 1979, was used as a domestic supply for the town of Trona. Domestic water for the Searles Valley is currently imported from the Indian Wells Valley.

Water Quality Standards and Criteria

Designated beneficial uses are a part of California's water quality standards, together with narrative and numerical water quality objectives. Objectives, which are analogous to federal "water quality criteria" may be set at natural background water quality levels, or at levels which scientific evidence indicates are necessary for protection of beneficial uses.

Chapter 2 of the Basin Plan discusses the rationale for designation of specific uses. Reasons for designating *potential* uses include (1) existing plans to put the water to these uses; (2) conditions such as location or demand which make such future use likely; (3) identification of the water body as a potential source of drinking water under SWRCB policy; and (4) the potential for remedial measures to ensure attainment of these uses for water bodies which do not now attain them. The Basin Plan (pages 2-3 to 2-4) recognizes that some beneficial uses of surface waters may occur only temporarily. The presence or absence of a beneficial use designation does not necessarily prevent the water from being put to the associated use.

Site specific numerical water quality objectives have not been designated for surface or ground waters within the Searles Lake watershed. The applicable objectives are regionwide objectives for surface and ground waters. For waters designated MUN, the applicable standards for naturally occurring toxic substances are the Department of Health Services' drinking water Maximum Contaminant Levels (MCLs), which are referenced in the regionwide "Chemical Constituents" objectives for surface and ground waters in Chapter 3 of the Basin Plan. Applicable standards also include the narrative non-degradation objectives for surface and ground waters. For waters not designated MUN, the Basin Plan's narrative nondegradation and toxicity objectives still apply.

Table 1 is a summary of selected state and federal water quality criteria for chemical constituents which are common in saline/geothermal waters of the Lahontan Region (Central Valley RWQCB, 1998). Table 3 includes state Maximum Contaminant Levels (MCLs). MCLs are both drinking water standards enforceable by the California Department of Health Services, and ambient water quality standards for waters designated for the MUN use, enforceable by the RWQCB. Primary MCLs are derived from health based criteria including incremental cancer risk estimates for carcinogens and from threshold toxicity levels for noncarcinogens, with consideration of technologic and economic factors. Secondary MCLs are derived from human welfare considerations such as taste, odor, and laundry staining. Table 1 also cites some state "Public Health Goals in Drinking Water" which are levels at which no adverse effects are expected to occur with lifetime consumption of the water. To supplement the numeric criteria in Table 1, the following narrative provides additional information on municipal use criteria for

some chemical constituents which are present in high concentrations in the ground waters of the Searles Valley basin. Comparison of the data for Searles Valley ground water summarized in the "Chemistry" section above indicates that drinking water MCLs and criteria are greatly exceeded in groundwater in the area proposed for removal of the potential MUN use.

Arsenic. Arsenic is toxic to humans; ingestion of as little as 100 mg can result in severe poisoning, and as little as 130 mg has proved fatal. Chronic lower doses can accumulate in the body, and cause cancer, liver and heart problems (McKee and Wolf, 1963). In addition to cancer, arsenic has been implicated in other adverse health effects including effects on the nervous, circulatory, and gastrointestinal systems, and the liver, hearing impairment, diabetes, and developmental effects (USEPA, 1999). Higher temperatures can increase the toxicity of arsenic, but it is not affected by water hardness (USEPA, 1980).

The current primary MCL for arsenic in drinking water is 50 ug/L, and was set to protect against skin cancer. Epidemiological studies in 1988 and 1990 on Taiwanese populations exposed to "high" levels of arsenic (300- 800 ug/day) had unexpectedly high levels of liver, kidney, lung, and bladder cancer. The human body can detoxify arsenic (in terms of non-carcinogenic effects) when amounts are below 200-250 ug/day, but this may not necessarily protect against carcinogenic effects (City of Los Angeles Water Services, 1998).

After a literature review including extensive epidemiological evidence from other countries such as the one cited above, the National Research Council recommended that the current standard be made more stringent. The Safe Drinking Water Act requires the USEPA to revise the existing drinking water standard for arsenic; a proposed Arsenic Rule is currently scheduled to be released in 2000, and a final rule in 2001 (USEPA, 1999). A more stringent standard may place even more Lahontan waters out of compliance with the standard and necessitate Section 303(d) listing for additional waters which are designated for the MUN use.

(Note that the arsenic criteria cited above are in micrograms per liter, and that arsenic in the Searles Valley ground water is found in concentrations of milligrams per liter.)

Boron. McKee and Wolf (1963) state that boron in drinking water up to 30 mg/L is not harmful, but above this level it may interfere with digestion. Excessive borate may cause nausea, cramps, convulsions, and coma.

Chloride. Chloride in drinking water is of concern primarily because of its impacts on palatability, although it may be injurious to some people with heart or kidney disease, and may have laxative effects for people who are used to lower concentrations. It can be tasted at concentrations as low as 61 mg/L, and imparts a salty taste at a median of 396 mg/L.

Sodium. Sodium in drinking water may be harmful to people with cardiac, circulatory, or kidney diseases. The USEPA (1986) recommends the following concentrations in drinking water: for people on low sodium diets, 20 mg/L; for people on moderately restricted diets, 270 mg/L. The taste threshold for sodium chloride is 135 mg/L and that for sodium carbonate is 34 mg/L.

Sulfate. Sulfate causes a bitter taste in drinking water when combined in high concentrations with other ions, and may have laxative effects for people unaccustomed to higher concentrations (USGS, 1989). The secondary MCL drinking water standard of 500 mg/L sulfate was set to prevent laxative effects (USEPA, 1986).

Total Dissolved Solids (TDS). TDS affects the taste of drinking water and has other effects depending on the concentrations of individual constituents. The secondary MCL drinking water standard of 500 mg/L TDS is based primarily on palatability (USEPA, 1986). The USEPA cites a survey of 29 California water systems for taste thresholds for TDS: levels of 1, 283-1,333 mg/L were rated “unacceptable”; water with 658-755 mg/L TDS was “good”, and water with 319-397 mg/L “excellent”. Very salty waters are not palatable, do not quench thirst, and may have laxative effects on new users. People have used waters supplies with 2000-4000 mg/L TDS when no better supply is available, but waters above 4000 mg/L are generally considered unfit for human use. TDS above 5000 mg/L causes bladder and intestinal irritation (McKee and Wolf, 1963). The threshold TDS level in the SWRCB’s “Sources of Drinking Water Policy (3000 mg/L) is higher than the state secondary MCL for TDS (500 mg/L).

Procedures for Changing Beneficial Use Designations

Federal regulations regarding designation and removal of beneficial uses (USEPA’s Water Quality Standards Regulation, 40 CFR 131.10) apply to “waters of the United States”, which are defined as surface waters. Basin Plan amendments to changes uses of ground waters of the Searles Valley basin are being proposed pursuant to California laws and regulations. The California Water Code defines “Waters of the state” to include “any surface water or groundwater, including saline waters, within the boundaries of the state” (Section 13050 [e]) and provides for adoption and periodic revision of water quality control plans by Regional Boards (Article 3, Sections 13240-13247).

In 1989, the Lahontan Regional Board incorporated the State Water Resources Control Board’s “Sources of Drinking Water Policy”, Resolution 88-63, into the North and South Lahontan Basin Plans. The incorporation was retained when these plans were replaced by the 1995 Lahontan Basin Plan. To implement the policy, as part of the 1989 Basin Plan amendments, the Board also designated almost all of the surface and ground water bodies in the Lahontan Region for the Municipal and Domestic Supply (MUN) beneficial use.

Prior to the 1989 amendments, most MUN designations were for waters *actually* used as drinking water sources, not for potential sources. One purpose of the MUN use designations adopted in 1989 was protection of additional waters for *potential* future use under Proposition 65. Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986 (California Health and Safety Code Section 25249.5 *et seq.*) prohibits discharge of any chemical “known to the State to cause cancer or reproductive toxicity” to a potential source of drinking water, with certain exceptions.

Under the Sources of Drinking Water Policy, all ground waters of the Lahontan Region are considered to be suitable, or potentially suitable, for municipal or domestic water supply and are so designated by the Regional Board with the exception of the following (*italics added*):

“1. Surface and ground waters where:

- a. The total dissolved solids (TDS) exceed 3,000 mg/L (5,000 uS/cm, electrical conductivity) and it is not reasonably expected by Regional Boards to supply a public water system, or*
- b. There is contamination, by natural processes that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices, or*
- c. The water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day... .”*

The surface water of Searles Lake was specifically excluded from the MUN use designation when the Lahontan Regional Board incorporated the Sources of Drinking Water Policy into its Basin Plans. The ground waters beneath the lake bed were excluded from the MUN use in the 1995 Basin Plan (see Table 2-2, page 2-47). Other surface waters and ground waters of the Trona HU, including ground waters of the Searles Valley basin outside of the Searles Lake bed, were designated for the MUN use. Justification for any future changes in these use designations requires evidence that these waters meet Sources of Drinking water policy criteria, and that it is not feasible to treat them for municipal use.

Beneficial Use Analysis

The MUN use is defined in Chapter 2 of the Basin Plan as:

“Beneficial uses of waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply”.

Based on the chemical water quality data summarized above, the TDS concentration of the ground water proposed for removal of the MUN use is well above 3,000 mg/L threshold in the Sources of Drinking Water Policy. Reported concentrations of arsenic, boron and TDS in the alluvial and saline aquifers exceed drinking water criteria, and also indicate that this water is unsuitable for MUN use under Item 1 (b) of the Sources of Drinking Water Policy regarding contamination by natural processes.

Regional Board staff are not aware of any plans to treat ground water within the boundary shown in Figure 5 for municipal use. Such treatment would be costly, might not be technically feasible due to the high concentrations of salts involve, and because of the availability of imported water, would probably not be cost effective. The USEPA (1997) has reviewed the feasibility of 11 different technologies for removal or arsenic from drinking water; removal efficiency depends on pH and the valence state of arsenic (AsIII vs. AsV). The study cited addresses “low level” arsenic removal, from 50 ug/L down to 1 ppb or less; arsenic concentrations in Searles Valley ground waters are much higher. DWR (1998) cites a nationwide study in 1994 which showed that the average urban water supply cost was “almost \$600 per acre-foot”. The U.S. Geological Survey (1996) reports that it “costs between \$1,300-\$2,200 per acre-foot to desalinate seawater

through the reverse osmosis method as opposed to costs of about \$200 per acre-foot for water from normal supply sources. Deutsch (1999) states that even at the most efficient plants, a thousand gallons of desalted water costs about \$2 to produce, twice the typical cost of freshwater sources.

The Industrial Process Supply (PRO) use is defined in the Basin Plan as:

“Beneficial uses of waters used for industrial activities that depend primarily on water quality.”

The chemical deposits of Searles Lake were discovered in 1863 and have been worked since 1873, with modern mining operations beginning in the early 1900s. The DWR (1964) calls Searles Lake the largest natural salt deposit in the Lahontan Region. The principal products in 1964 were boron, cesium, lithium, potash, and soda ash. IMCC presently owns or leases more than half of the land on the Searles Lake bed and conducts solution mining for evaporite minerals. Brines are pumped from the upper 400 to 500 feet of the saline deposits, and potash, borax, salt cake and soda ash are evaporated and recovered by fractional distillation. IMCC wells extract brine from three brine aquifer units, and brackish water from areas to the south, west, and north of the dry lake bed. These fluids are delivered to one of three chemical processing plants where chemicals are extracted. The partially depleted brine is returned to the lakebed in two ways: (1) via pipelines to injection wells, where it is used in solution mining; or (2) through man-made channels to percolation ponds, which cover several square miles of lakebed.

Standard references on water quality criteria (e.g., McKee and Wolf, 1963) discuss industrial use of water mainly in terms of the need for good quality water as an ingredient in food or beverage processing or in other processes such as the paper pulp industry and the need to prevent corrosion of or scale deposition on equipment. The saline and geothermal surface waters of the Lahontan Region would be considered of poor quality for most industrial process supply uses, especially those involving human food and beverages, due to high salinity and/or pH, high levels of toxic elements such as arsenic, and/or corrosivity. However, the mineral extraction operations at Searles Lake depend on the "poor" quality of the ground water beneath the lakebed, and it is appropriate to designate this ground water for the PRO use. The use will be added through a footnote in Table 2-2 of the Basin Plan.

Summary and Conclusions

The information summarized in this appendix indicates that the ground water affected by the proposed elements has naturally high concentrations of Total Dissolved Solids and toxic constituents such as arsenic and boron which make it unsuitable for municipal use, and which exceed drinking water Maximum Contaminant Levels and the threshold criteria in the "Sources of Drinking Water Policy. Treatment of this water for municipal use is not considered feasible, and municipal supplies for the affected area are being imported from another watershed. Removal of the potential MUN use designation from the ground waters of the area shown in Figure 5 is appropriate. Ground water beneath the Searles Lake bed is being used in an existing industrial process, and addition of the PRO use designation for this ground water is appropriate.

REFERENCES

(Citation of these documents is not meant to imply incorporation by reference, either into this CEQA document or into the Basin Plan.)

California Department of Toxic Substances Control, 1998, Facility Inventory Data Base, Hazardous Waste and Substances Sites List for San Bernardino County, 4-15-98.

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NORTH LAHONTAN BASIN

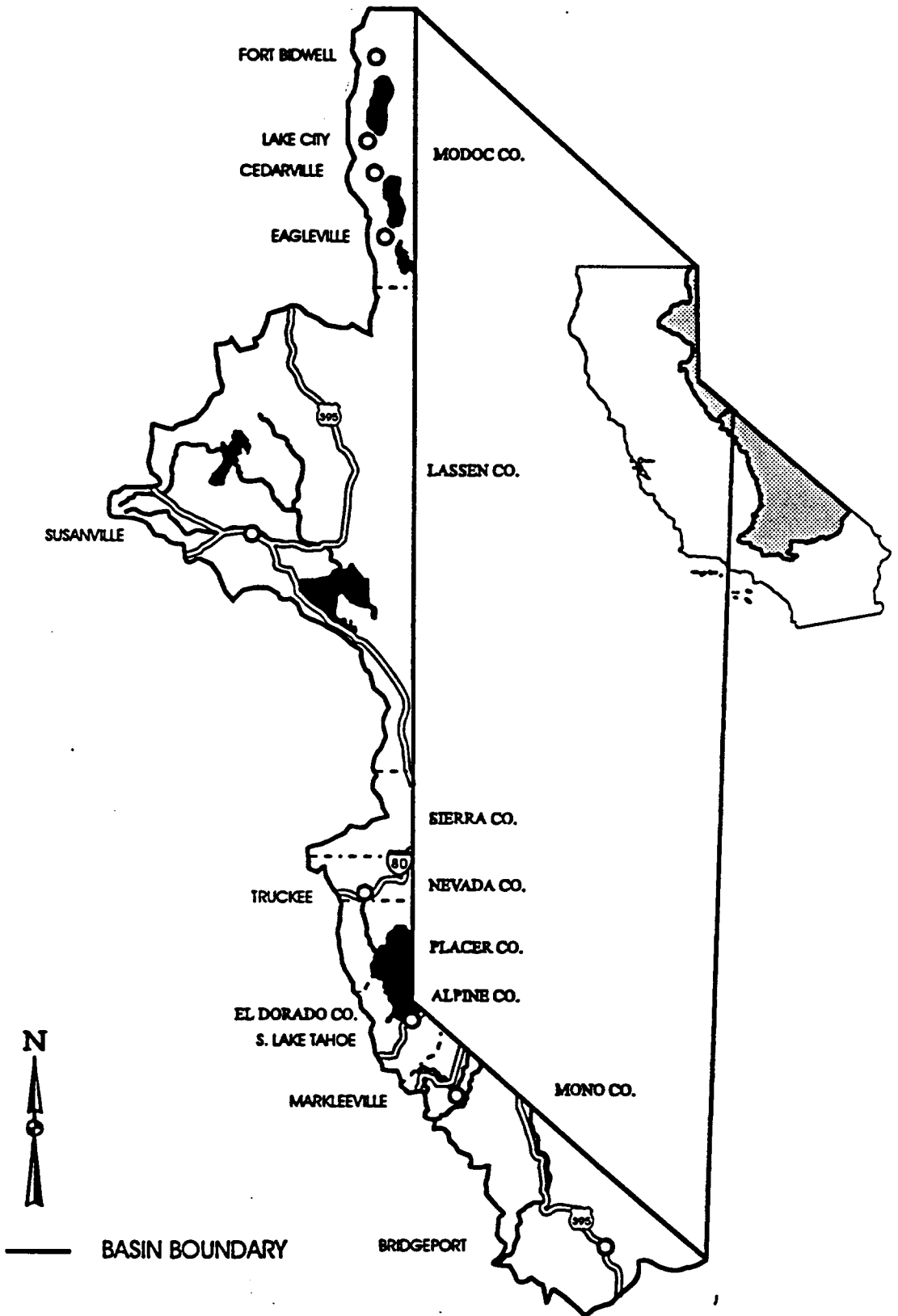
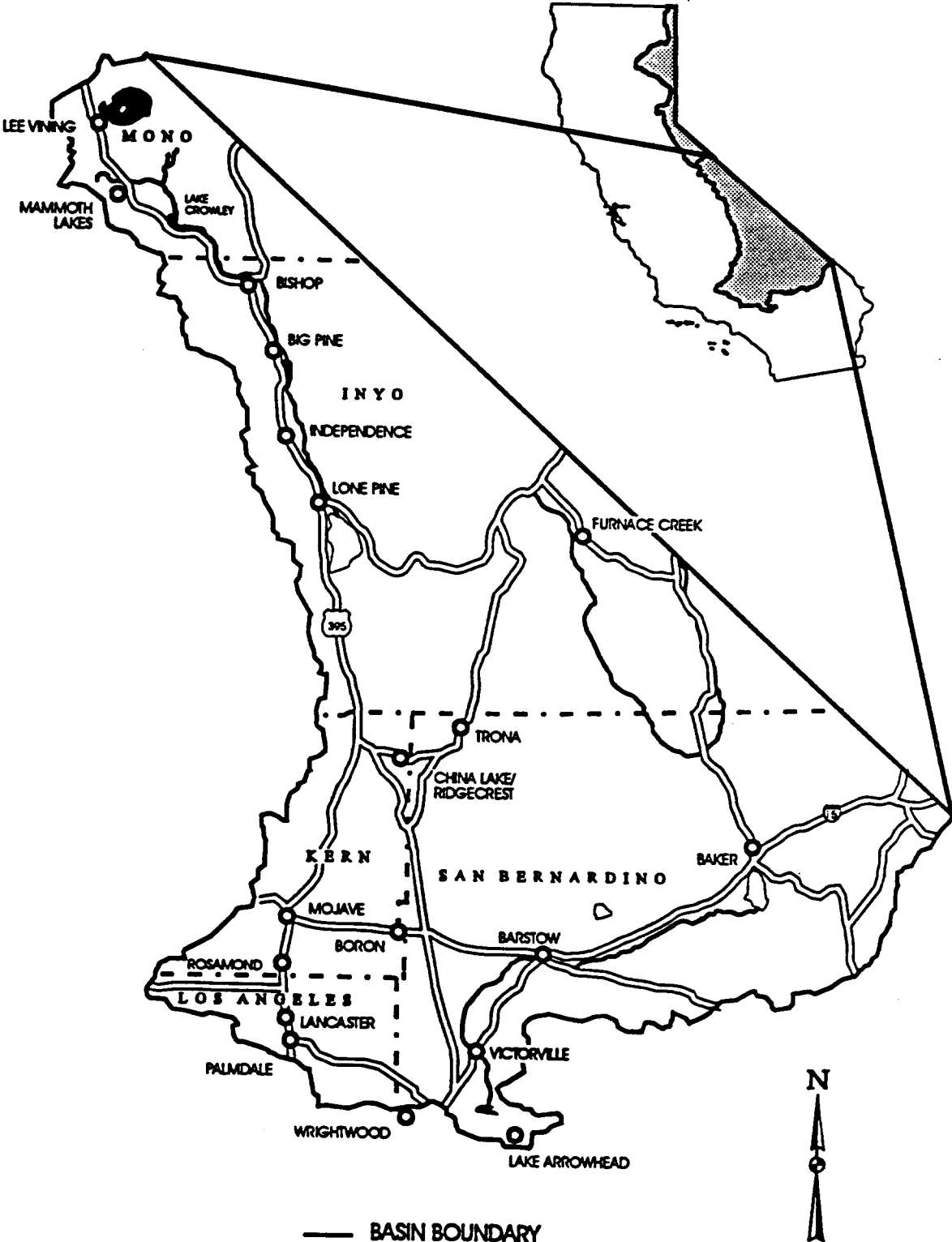


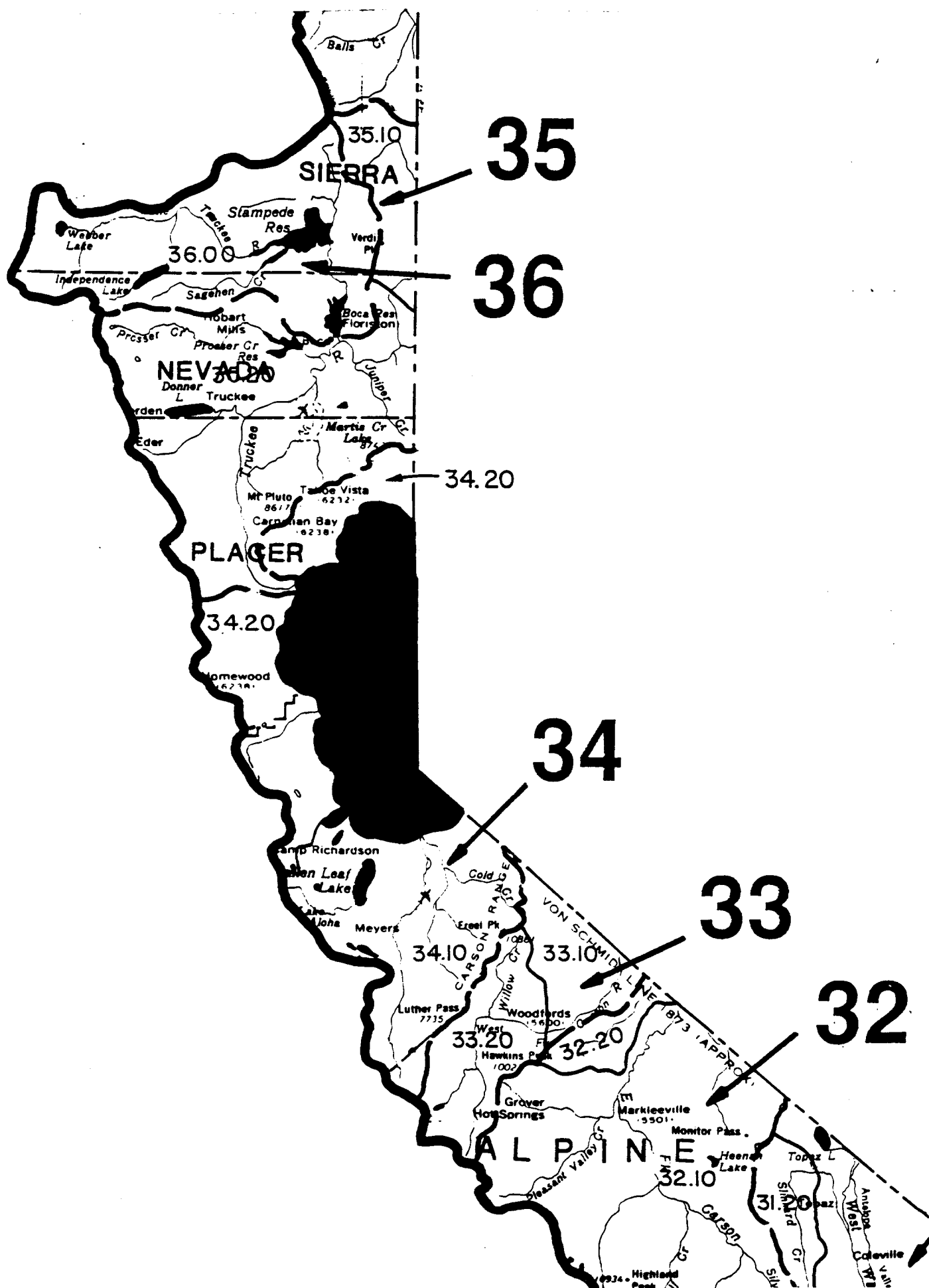
Figure 1. Map of North Lahontan Basin (Source: Lahontan Basin Plan)

Figure 2. Map of South Lahontan Basin (Source: Lahontan Basin Plan)

SOUTH LAHONTAN BASIN



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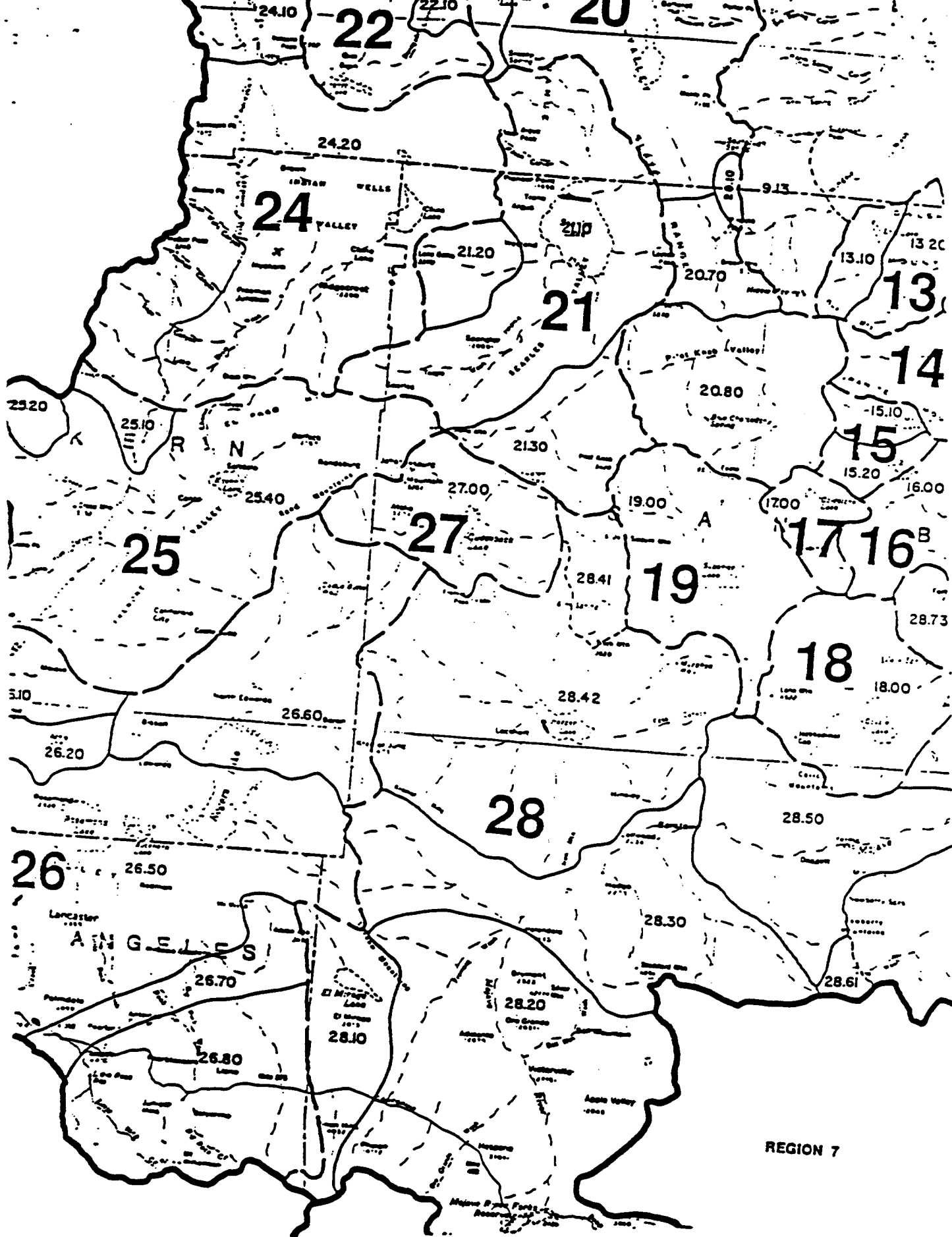


Figure 4. Location of Trona HU (#621) (Source: Lahontan Basin Plan)

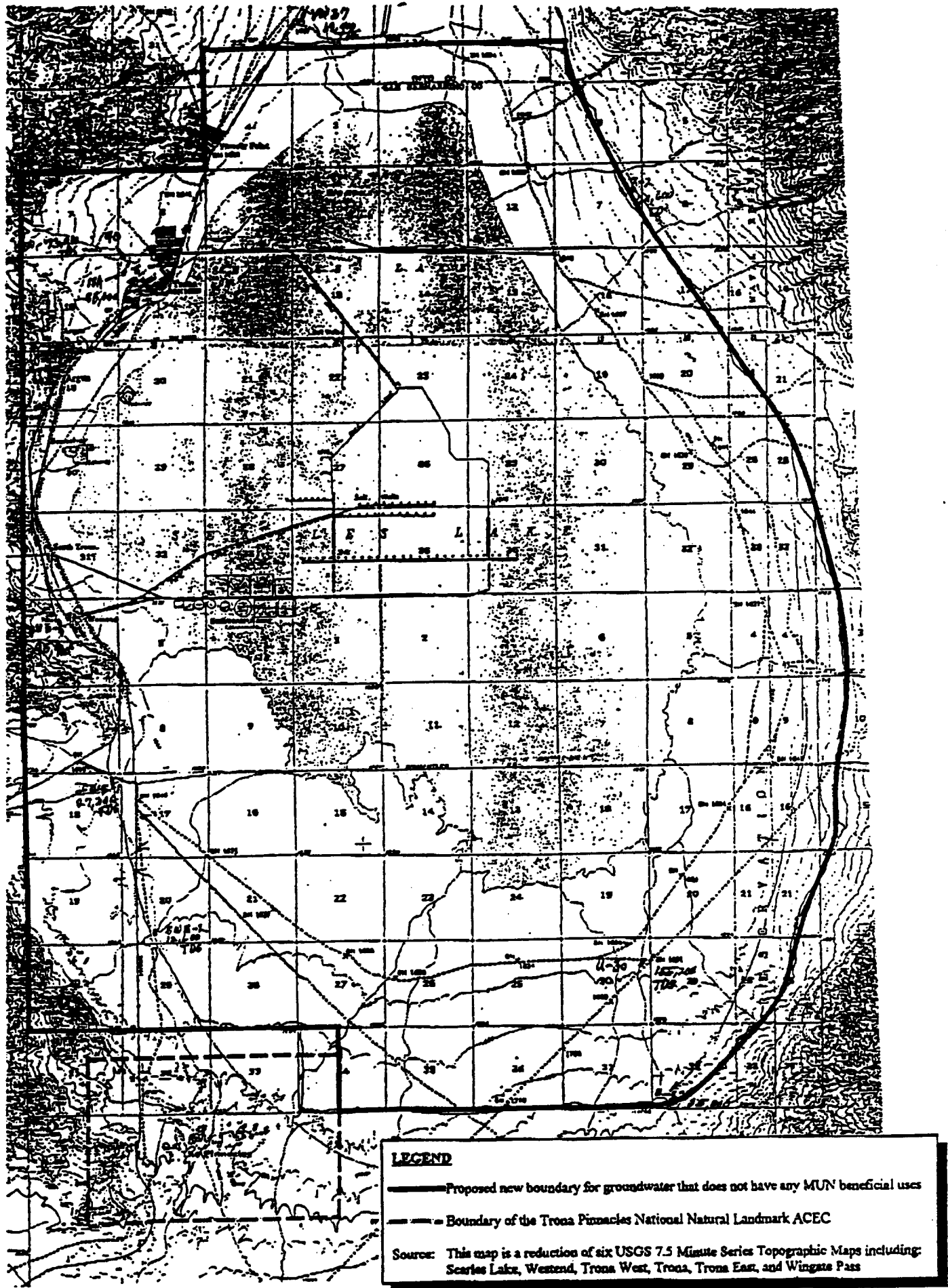


Figure 5. BOUNDARY OF AREA WITHIN SEARLES VALLEY GROUND WATER BASIN WHERE MUN USE DESIGNATION DOES NOT APPLY

Table 1. Water Quality Criteria for Inorganic Constituents of Concern for Lahontan Region Saline and Geothermal Waters. All concentrations in micrograms per liter (parts per billion) unless otherwise specified. Lahontan Basin Plan water quality objectives for surface waters designated MUN are the CA Dept. of Health Services MCLs. Source: Central Valley RWQCB, 1998.

Chemical Constituent	CA Dept. of Health Services Primary MCL	CA Dept. of Health Services Secondary MCL	CA Prop. 65 Regulatory Level	Agricultural Water Quality Goals	USEPA National Ambient Water Quality Criteria/ Freshwater Aquatic Life	USEPA National Ambient Water Quality Criteria/ Saltwater Aquatic Life	Proposed California Toxics Rule, Human Health	Proposed California Toxics Rule, Freshwater Aquatic Life	Other
Arsenic	50		5		190 (4 day avg.) 360 (1 hr avg.)	36 (4 day avg) 69 (1 hr. avg)		150 (continuous limit) 340 (acute limit)	USEPA Drinking Water Health Advisory (SNARL) 0.02
Boron				700/750					USEPA Drinking Water Advisory (SNARL) 600
Chloride		250,000		106,000	230,000 (4 day avg) 860,000 (1 hr avg)				
Fluoride	1400 to 2400			1000					CA Public Health Goal in Drinking Water 1000
Sodium									USEPA Drinking Water Health Advisory SNARL 2000
Sulfate		250,000							
Total dissolved solids (TDS)		500,000		450,000					USEPA National Ambient Water Quality Criteria: Human Health- Taste and Odor or Welfare